B A C K H O E L O A D E R S

410 E





Introducing our strongest 410 ever

You can forget everything you know or have heard about the John Deere 410. The new E-Series is here – with totally redesigned loader and backhoe structures that deliver *substantially more* breakout, lift, and reach.

Beyond digging structures, there are plenty of other powerful reasons why this backhoe is such a strong performer. An all-new excavator-style hydraulic system delivers immediate response, superior combined-function metering, and low-effort control regardless of the load or application. What's more, the high-torque PowerTech™ diesel, tighter torque-converter match, and refined transmission make the 410E more nimble and responsive.

Not everything has changed, however. The 410E is still available with the industry's quietest cab and most effective MFWD. As with all Deere backhoes, an automatic park brake and more than a dozen other standard safety features are yours as well.

Looking for a mid-size backhoe with bigjob abilities? You've found it in the 410E. For the complete story and specs, thumb through the following pages. Then get to your John Deere dealership for a hands-on demo. And experience for yourself the E-Series difference.







Boom starts wide at the base and narrows to less than 9inches through the line-of-sight. Unlike the large "dorsal fin" on other backhoes, the 410E's compact cylinders share a lowprofile single-pin attaching point that doesn't impair side-swing visibility, either.



Easy-to-activate boom lock secures the backhoe in a vertical position for smooth transport. Rubber bumper ensures that the boom stays snug and



Exclusive linkage provides 190-degree bucket rotation, letting you go from power-dig to truck-loading position without pulling pin. Makes vertical-wall excavations, easier, too. Excavator-style curved side-cutters enable you to dig around buried pipe, minimizing handwork. Bucket and linkage pins are lubricated for long life.



410E's backhoe geometry has all the angles covered

Equipped with standard dipperstick, the new 410E lets you reach out 19 feet 8 inches and load into trucks easier. Lets you excavate closer, too, for enhanced visibility and less repositioning. But its Power Curve™ boom isn't the only advantage that enables this heavy-duty backhoe to do things others can't.

Crowd power, swing torque, and boom and dipperstick lift are impressive. So are the low-effort controls. Closed-center pressure-compensating load-sensing hydraulics give superb combined-function metering. Unlike other so-called PCLS systems, all functions have equal priority. When a heavy load is encountered, boom, dipperstick, and bucket operations adjust proportionately, giving you smooth, consistent





Extendable dipperstick option adds 4 feet of digging depth and reach. The outer box extends, letting you grasp cumbersome objects such as a concrete slab between the bucket and box gripper teeth while retracting or extending. Wear strips are easy to lube, easy to replace.



Available quick-coupler lets you change buckets and attachments easily. Requires no special pins, tools, or buckets. Accommodates Cat, Case, and older John Deere buckets, as well.

Rearward-angled 10-foot-wide stabilizers and no-drift cylinders provide rock-solid stability for craning heavy objects and precise placement of materials. Optional reversible pads have an aggressive side for soft terrain and a rubber side for hard surfaces.

Here's why 410E is the loader leader

The "other" working end of a John Deere backhoe has long been considered the industry's best. And the many advantages found in the 410E's refined loader will further enhance that reputation.

The robot-welded boom is constructed of laser-cut, high-tensile steel for superior strength without excess weight. Its one-piece continuous-curve box-section design eliminates the need for additional plating in the knee area. And a large-diameter crosstube adds rigidity to resist flexing.

What's more, the curved knee accommodates tall tires for better flotation and increased ground clearance. Provides exceptional reach, too, enabling you to easily dump beyond the center of most trucks for quick and easy loading.

An optimum lift-to-crowd match and smooth combined function metering make heaping the bucket nearly effortless. The single bucket-cylinder utilizes the piston-end for powerful breakout, and the rod-end for fast dumping. Add to that a refined linkage that delivers smooth self-leveling and bucket control, and you get fast loading cycles and better material retention. Makes grading easier, too.

Transmission-disconnect switch diverts full engine power to the hydraulics for faster cycles.



MFWD switch is uniquely shaped and positioned in the console close to the loader lever for convenient, no-look on/off.







Bucket-level indicator is within your line-of-sight. Nearby automatic return-to-dig switch is well-protected, yet easily accessible. Other convenience features such as hydraulic self-leveling and float are also standard.





"Torque tube" spillsheet resists bending. C-shape backwall fills and sheds materials easily. Its 92-inch width covers the tire footprint and long-lip helps build larger loads. Cutting edge, full-length skid shoes, and builtin lift eyes are standard. Largediameter pins deliver long life.



Optional MFWD provides extra power and traction regardless of what's underfoot. Helps heap the bucket, too. Its limited-slip design automatically transfers up to 80 percent of available power to the wheel with the best traction for true 4WD power.



No more shaking the bucket in an attempt to position the load. Superior reach enables the 410E to dump to the center of the truck for easier loading and fast cycles.



A 50-degree turning angle gives the 410E a tight 11-foot 5-inch turning radius for easy moves in close quarters.

It takes guts to build a backhoe this good

Free-breathing cross-flow cylinder head, specially shaped pistons, and contoured valves increase intake and exhaust flows for maximum power output and top fuel efficiency. Deere-built 4.5 L turbocharged diesel packs a whopping 34-percent torque reserve for impressive pull-through power. This 90 horsepower diesel also delivers 4 ½ - percent more power at 1,800 rpm, letting you throttle back for better fuel

economy and reduced noise.

The 4-speed fully synchronized collar-shift transmission is coupled with a single-stage, dual-phase torque converter and

> planetary reverser for smooth moves.

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

cast, wet-type cylinder liners dissipate heat for reduced ring wear and oil breakdown. Highring pistons provide high compression, three low-friction rings deliver superior oil control.

Individually replaceable, spin-

Advanced PowerTech™ diesel meets all worldwide emission standards for off-road engines – so the 410E can go to work anywhere rigid standards exist.

Jet-spray nozzles bathe the bottom and sides of pistons with cooled oil for longer life.

Available industrialstrength limited-slip MFWD features a unique offset differential for superior ground clearance. Axle is totally sealed to keep out dirt and contaminents.

Impressive torque rise, tight torque-converter match, and aggressive gearing provide a powertrain that accelerates swiftly, for scaling grades easily, even in 4th gear. Reverse is 10 percent faster than forward, for fast cycles.

Positioned securely in the one-piece unitized mainframe, components are isolated from shock-load stress, yet can be individually removed to speed repairs or downtime.

This is one backhoe that has what it takes to beat the daily grind.

From its nearly bulletproof wet-sleeve Deere-built diesel to its never-say-die planetary axle, the 410E is armed with a multitude of advantages – traditional John Deere features that help it live a long, productive, and profitable life.

Looking for a hoe that has what it takes to deliver a long-term commitment? John Deere backhoes are manufactured to exacting quality standards in an ISO9001 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 410E.

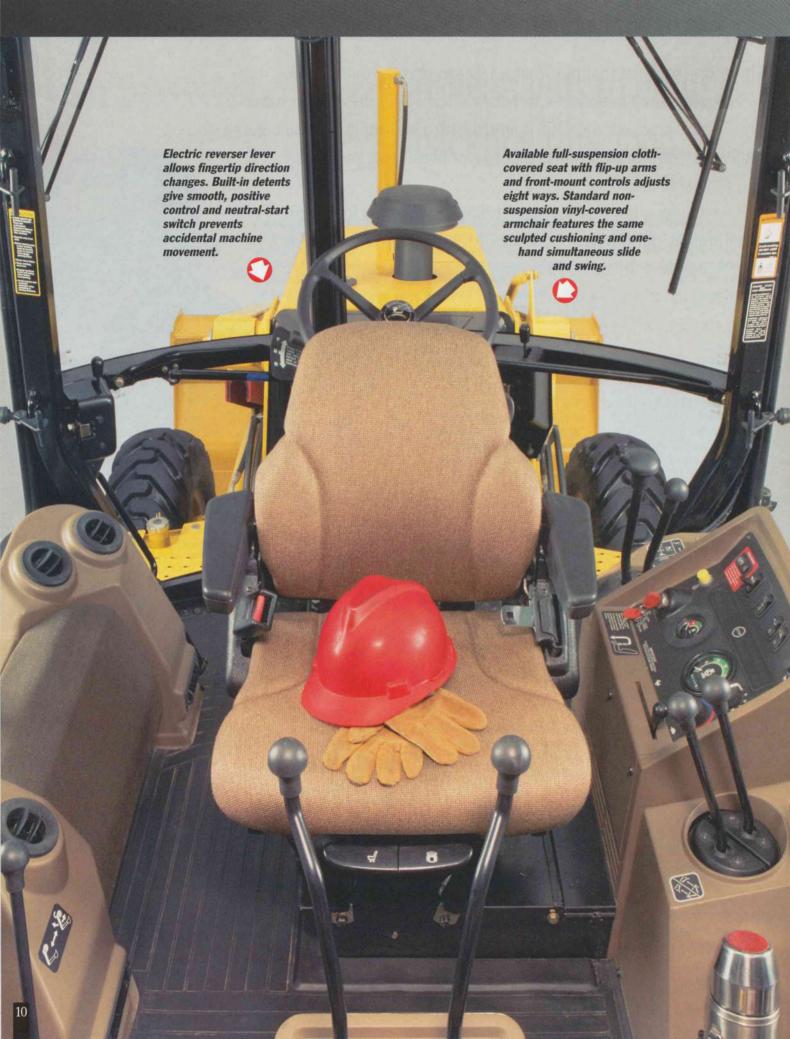
Closed-center PCLS hydraulic system blends good metering characteristics with low-effort for smooth control. Pump freewheels when not in use, to optimize power and fuel. The fully enclosed wet-disk parking brake automatically engages whenever the engine stops, independent of the service brakes, it's capable of holding the 410E on a 20-degree slope.

Nobody gives you a brake like Deere. Chatter-free and fully modulated so they require less effort, these multiple wet disk brakes self-adjust, selfequalize, and require no maintenance.

Low-effort differential lock can be engaged on-the-go to improve traction in poor underfoot conditions.

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

> Rear axle bearings are selflubricating so you'll never need to grease this frequently overlooked service point.



Here's everything you need to help you do your best

When you consider the impact that comfort and convenience can have on an operator, it seems counterproductive not to equip your 410E with this state-of-the-art cab.

Visibility is unmatched. Floor-to-ceiling tinted front glass, huge side and rear windows, and narrow, well-positioned ROPS posts provide a virtually unrestricted all-around view.

Short-throw low-effort controls are at your fingertips. And the contoured, fully padded armchair seat and available tilt steering wheel fully adjust.

Even "little extras" are yours for no extra. There's a holder for securing a Thermos and for cradling your coffee cup. Also a jacket hook, storage for the operator's manual or paperwork, and an in-cab rearview mirror, to list just a few.

At less than 76 dB(A), the 410E's enclosed operator station is refreshingly quiet.

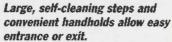
Flipping this switch engages or disengages the secondary brake. Independent of the service brakes, it also automatically engages whenever the engine stops.



Electronic monitor or optional gauges can be read at-a-glance from either operating position. Console also houses seat belt warning, ignition, and MFWD switches, as well as climate controls.



Huge doors open wide (right side optional) and out of the way of oncoming traffic. Side windows swing open to the front or rear for flow-through ventilation.





Foot-operated, no-effort differential lock can be engaged on-the-go. This standard feature equalizes power to the rear wheels for increased traction in slick conditions or when moving heavy loads.



The 40,000 Btu per hour climate control system blends in fresh air and delivers it through directional vents for effective defrosting, heating, and cooling (air-conditioning optional). What's more, cab pressurization helps keep out dust.

Okay, so maybe the 410E's simplified service requirements won't actually make you (or your backhoe) smile. But they won't leave you talking to yourself, either.

Most daily and periodic service points are grouped and ground accessible, making checks, additions, or changes quick and easy. Vertical spin-on filters, large easy-to-open doors, a front-axle grease bank, hydraulic-oil sight gauge, and numerous other well-thought-out convenience features make it easier to accomplish these potentially tedious tasks. And help you start each day on the right foot.

Service with a SMILE



Each electrical circuit has its own fuse in this centrally located load center. Helps make troubleshooting and service work quick and easy.



Eye-level sight gauge provides a contamination-free check of the hydraulic oil level. Give it a quick look on the way to the seat, or while you refuel.

Daily powertrain service is done through this lockable sliding door. Riding on a self-cleaning nylon slide, it provides ground-level access to engine and transmission filler necks and dipsticks, and fuel filter. Add coolant or change the air filter through the large lockable hinged door atop the hood.

Zerks are positioned where you can get a grease gun on them. Wide-open swing frame allows easy access to the hydraulic valve and lines. External boom and dipper cylinders and hoses are also easier to service. Flatface O-ring seal couplings virtually eliminate annoying and costly leaks.



We've got what it takes to keep you working...

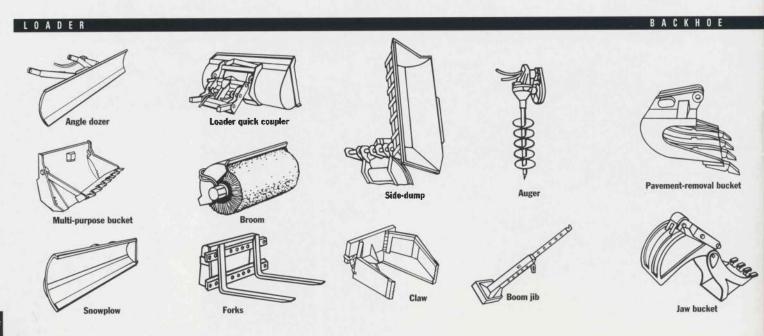
With its new heavy-duty loader, excavator-style backhoe, and enhanced hydraulic system, a lot of expensive options aren't needed to widen the appeal of your 410E.

Start with a loader or backhoe quick-coupler that lets you change tools 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 hydraulic-powered attachment. And there are plenty from which to choose.

But regardless of how many "bells and whistles" it may have, no backhoe is any better than the support behind it. That's why every 410E is backed by a large network of dependable 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 reasons for running a 410E are better than ever.

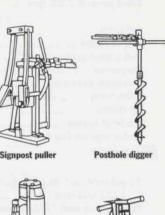
Scan this page for an idea of the kind of attachments available for the 410E. Then get in to see your John Deere dealer and get to work.



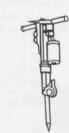


OTHER











Breaker





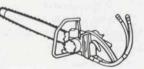
Asphalt cutter

Brush cutter









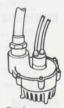












Cemetery bucket

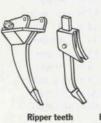
Hydraulic compactor

Backhoe quick-coupler

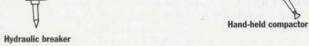
Hydraulic alternator Trash pump











ENGINE	410E			
Type		rged		
Rated power @ 2,200 rpm	98 SAE gross hp (73 kW)			
Cylinders	90 SAE net hp (67 kW)			
Displacement				
Fuel consumption, typical		1/h)		
Torque rise		L/II)		
Maximum net torque				
	pressure system with full-flow spin-on filter and coolerdual stage dry type with safety element and precleaner			
Electrical system				
Sucker-type cooling fan	•			
RANSMISSION	four-speed, helical cut gear, collar shift transmission synchronized in all gears with hydraulic reverser			
Torque converter, single stage, dual phase with	nyanane teverset			
2.12:1 stall ratio	11 in. (280 mm)			
Travel speeds with 19.5L-24 rear tires		Reverse		
Gear I	3.6 mph (5.8 km/h)	4.0 mph (6.4 km/h)		
Gear 2	5.9 mph (9.5 km/h)	6.6 mph (10.6 km/h)		
Gear 3	* '	16.1 mph (25.9 km/h)		
Gear 4	24.4 mph (39.3 km/h)	27.2 mph (43.8 km/h)		
INAL DRIVES	heavy-duty, inboard planeta	ry final drives evenly distribute s	hock loads over three ge	
BRAKES		l inboard, self adjusting and self		
CAPACITIES				
Fuel tank (with ground level fueling)	,			
Engine coolant				
Engine oil including filter	9 qt. (8.5 L)			
Torque converter and transmission				
Hydraulic system				
Rear axle	•			
Mechanical-front-wheel-drive axle	,2.3 gal. (8.5 l.)			
STEERING	hydrostatic power steering o	onforms to SAE J1151, emergenc	y steering to SAE J53	
Non-powered axle				
Curb turning radius with brakes	11 ft. 8 in. (3.56 m)			
Without brakes	· · · · · · · · · · · · · · · · · · ·			
Bucket clearance circle with brakes				
Without brakes				
Steering wheel turns, stop to stop	2.3 to 3.0			
Mechanical-front-wheel-drive				
Curb turning radius with brakes				
Without brakes				
Bucket clearance circle with brakes				
Steering wheel turns, stop to stop				
Axle oscillation, stop to stop, both axles	22 degrees			
Axle ratings (SAE J43)	22.240 lb (10.140 lb)			
Front				
Rear	15,550 ID. (7045 Kg)			
HYDRAULIC SYSTEM				
System		sensing (PCLS)		
Pressure, main relief				
Pump				
Flow @ 2,200 rpm	0.			
Filter, return oil	10-micron, spin-on vertical i	replaceable element		
CYLINDERS				
	Borc	Stroke	Rod	
Loader boom (2)		31.1 in. (790 mm)	1.97 in. (50 mm)	
Loader bucket (1)		33.7 in. (856 mm)	1.77 in. (45 mm)	
Backhoe boom (1)		35.3 in. (897 mm)	2.48 in. (63 mm)	
Backhoe crowd (1)		27.7 in. (703 mm)	2.48 in. (63 mm)	
Backhoe bucket (1)		31.9 in. (810 mm)	2.48 in. (63 mm)	
Backhoe swing (2)		10.9 in. (278 mm)	1.97 in. (50 mm)	
P. 11	2.76 in. (70 mm)	47.8 in. (1214 mm)	1.77 in. (45 mm)	
Backhoe extendable dipperstick (1)		10.7: (500	1.07	
Backhoe stabilizer (2)	3.94 in. (100 mm)	19.7 in. (500 mm)	1.97 in. (50 mm)	
		19.7 in. (500 mm) 9.49 in. (241 mm) 8.27 in. (210 mm)	1.97 in. (50 mm) 0.98 in. (25 mm) 1.42 in. (36 mm)	

TIRES	410E		
	Rear	Front	
With non-powered front axle	19.5L-24, 10 PR R4	11L-16, 12 PR F3	
	21L-24, 10 PR R4	14.5/75-16.1, 10 PR F3	
With mechanical-front-wheel-drive		12.5/80-18, 10 PR	
	21L-24, 10 PR R4	12.5/80-18, 10 PR	
AE OBERATING WEIGHTS			
SAE OPERATING WEIGHTS	15 000 lb (6004 b-)		
Standard			
Cab adds			
Mechanical-front-wheel-drive with tires adds	325 ID. (147 Kg)		
Extendable dipperstick excluding required	620 H (000 L)		
counterweight adds			
Optional 400-lb. counterweight adds			
Optional 650-lb. counterweight adds			
Optional 250-lb. bolt-on counterweight adds			
Backhoe bucket coupler adds			
See backhoe and loader performance data for bucket weigh	its.		
OADER BUCKETS		and between	Hardy Inc.
	Width	Heaped Capacity	Weight
Heavy-duty long lip		1.30 cu. yd. (1.00 m ³)	1,050 lb. (476 kg)
	92 in. (2340 mm)	1.50 cu. yd. (1.15 m ³)	1,190 lb. (540 kg)
Multipurpose	92 in. (2340 mm)	1.25 cu. yd. (0.96 m³)	1,550 lb. (703 kg)
Auxiliary cutting edge and skid shoes are standard on all b	uckets.		
BACKHOE PERFORMANCE			
	With Standard	With Extendable Dippe	erstick*
	With Standard Backhoe*	With Extendable Dippe Retracted	erstick* Extended
Digging force, bucket cylinder	Backhoe*	Retracted	Extended
Digging force, bucket cylinder	Backhoe*14,801 lb. (65.8 kN)	Retracted 15,010 lb. (66.7 kN)	Extended
Digging force, crowd cylinder	Backhoe* 14,801 lb. (65.8 kN) 8,741 lb. (38.9 kN)	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN)	Extended 15,010 lb. (66.7 kN 5,980 lb. (26.6 kN)
Digging force, crowd cylinder	Backhoe*14,801 lb. (65.8 kN)8,741 lb. (38.9 kN)180 degrees	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees	Extended 15,010 lb. (66.7 kN 5,980 lb. (26.6 kN) 180 degrees
Digging force, crowd cylinder	Backhoe*14,801 lb. (65.8 kN)8,741 lb. (38.9 kN)180 degreestwo levers	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle	Extended 15,010 lb. (66.7 kN 5,980 lb. (26.6 kN) 180 degrees right foot treadle
Digging force, crowd cylinder Swing arc Operator control Bucket rotation	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees	Extended 15,010 lb. (66.7 kN 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees
Digging force, crowd cylinder Swing arc Operator control Bucket rotation	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees	Extended 15,010 lb. (66.7 kN 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees
Digging force, crowd cylinder	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees
Digging force, crowd cylinder	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees
Digging force, crowd cylinder	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg)
Digging force, crowd cylinder	Backhoe*	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg)
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m	### Backhoe* ### 14,801 lb. (65.8 kN) ### 8,741 lb. (38.9 kN) ### 180 degrees ### 190 degrees ### 190 degrees ### 18 degrees ### 14 degrees ### 14 degrees ### 14 degrees ### 14 degrees ### 10 unit	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg) 400 lb. (181 kg)
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m	### Backhoe* ### 14,801 lb. (65.8 kN) ### 180 degrees ### 180 degrees ### 190 degrees ### 18 degrees ### 14 degrees ### 14 degrees ### 14 degrees ### 10,000 mm) ### 12 in. (610 mm) ### 12 in. (305 mm) ### 18 in. (457 mm) ### 24 in. (610 mm) ### 24 in. (610 mm) ### 24 in. (610 mm)	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³) 8.8 cu. ft. (0.25 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg) 400 lb. (181 kg) 420 lb. (191 kg)
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m	## Backhoe* ## 14,801 lb. (65.8 kN) ## 8,741 lb. (38.9 kN) ## 180 degrees ## 190 degrees ## 190 degrees ## 18 degrees ## 14 degrees ## 14 degrees ## 10,000 mm ## 12 in. (610 mm) ## 12 in. (610 mm) ## 12 in. (610 mm) ## 14 in. (610 mm) ## 15 in. (610 mm) ## 16 in. (762 mm) ## 16 in. (762 mm)	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³) 8.8 cu. ft. (0.25 m³) 10.0 cu. ft. (0.28 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg) 400 lb. (181 kg) 420 lb. (191 kg) 445 lb. (202 kg)
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m *BACKHOE BUCKETS Standard duty Heavy duty	## Backhoe* 14,801 lb. (65.8 kN) 8,741 lb. (38.9 kN) 180 degrees 190 degrees 190 degrees 14 degrees 14 degrees 14 degrees 15 degrees 16 degrees 17 degrees 18 degrees 19 degrees 19 degrees 10 degrees 10 degrees 11 degrees 12 degrees 13 degrees 14 degrees 15 degrees 16 degrees 17 degrees 18 degrees 19 degrees 19 degrees 10 degrees 10 degrees 11 degrees 12 degrees 13 degrees 14 degrees 15 degrees 16 degrees 17 degrees 18 degrees 19 degrees 10 degrees	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³) 8.8 cu. ft. (0.25 m³) 10.0 cu. ft. (0.28 m³) 12.5 cu. ft. (0.35 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg) 400 lb. (181 kg) 420 lb. (191 kg) 445 lb. (202 kg) 510 lb. (231 kg)
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m	## Backhoe* ## 14,801 lb. (65.8 kN) ## 8,741 lb. (38.9 kN) ## 180 degrees ## 190 degrees ## 190 degrees ## 190 degrees ## 14 degrees ## 14 degrees ## 14 degrees ## 10,000 mm) ## 12 in. (610 mm) ## 12 in. (610 mm) ## 14 in. (610 mm) ## 14 in. (610 mm) ## 15 in. (457 mm) ## 16 in. (762 mm) ## 16 in. (914 mm) ## 18 in. (457 mm)	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³) 8.8 cu. ft. (0.25 m³) 10.0 cu. ft. (0.28 m³) 5.1 cu. ft. (0.28 m³) 5.1 cu. ft. (0.14 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg) 400 lb. (181 kg) 420 lb. (191 kg) 445 lb. (202 kg) 510 lb. (231 kg) 362 lb. (164 kg)
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m *BACKHOE BUCKETS Standard duty Heavy duty	## Backhoe* 14,801 lb. (65.8 kN) 8,741 lb. (38.9 kN) 180 degrees 190 degrees 190 degrees 14 degrees 14 degrees 14 degrees 15 degrees 16 degrees 16 degrees 17 degrees 18 degrees 19 degrees 19 degrees 10 degrees 10 degrees 10 degrees 11 degrees 12 degrees 13 degrees 14 degrees 15 degrees 16 degrees 17 degrees 18 in. (457 mm) 18 in. (457 mm) 18 in. (457 mm) 18 in. (610 mm) 19 degrees 19 degrees 19 degrees 19 degrees 19 degrees 19 degrees 10 degree	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³) 8.8 cu. ft. (0.25 m³) 10.0 cu. ft. (0.28 m³) 12.5 cu. ft. (0.35 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg) 400 lb. (181 kg) 420 lb. (191 kg) 445 lb. (202 kg) 510 lb. (231 kg) 362 lb. (164 kg) 425 lb. (193 kg)
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m *BACKHOE BUCKETS Standard duty Heavy duty	## Backhoe* 14,801 lb. (65.8 kN) 8,741 lb. (38.9 kN) 180 degrees 190 degrees 190 degrees 14 degrees 14 degrees 14 degrees 15 degrees 16 degrees 16 degrees 17 degrees 18 degrees 19 degrees 19 degrees 10 degrees 10 degrees 10 degrees 11 degrees 12 degrees 13 degrees 14 degrees 15 degrees 16 degrees 17 degrees 18 in. (457 mm) 18 in. (457 mm) 18 in. (457 mm) 18 in. (610 mm) 19 degrees 19 degrees 19 degrees 19 degrees 19 degrees 10 degree	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.25 m³) 10.0 cu. ft. (0.28 m³) 12.5 cu. ft. (0.35 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.28 m³) 8.8 cu. ft. (0.21 m³) 8.8 cu. ft. (0.21 m³) 8.8 cu. ft. (0.21 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg) 400 lb. (181 kg) 420 lb. (191 kg) 445 lb. (202 kg) 510 lb. (231 kg) 362 lb. (164 kg) 425 lb. (193 kg) 455 lb. (206 kg)
Digging force, crowd cylinder Swing arc Operator control Bucket rotation Stabilizer angle rearward Leveling angle *Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 m BACKHOE BUCKETS Standard duty Heavy duty	## Backhoe* ## 14,801 lb. (65.8 kN) ## 8,741 lb. (38.9 kN) ## 180 degrees ## 190 degrees ## 190 degrees ## 14 degrees ## 14 degrees ## 14 degrees ## 10,000 mm) ## 12 in. (610 mm) ## 12 in. (610 mm) ## 14 in. (610 mm) ## 16 in. (762 mm) ## 36 in. (914 mm) ## 18 in. (457 mm) ## 14 in. (610 mm) ## 15 in. (457 mm) ## 16 in. (914 mm) ## 17 in. (610 mm) ## 17 in. (610 mm) ## 18 in. (457 mm) ## 18 in. (457 mm) ## 19 in. (610 mm) ## 19 in. (762 mm) ## 19 in. (762 mm) ## 19 in. (762 mm)	Retracted 15,010 lb. (66.7 kN) 8,446 lb. (37.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees 14 degrees Capacity 7.5 cu. ft. (0.21 m³) 3.3 cu. ft. (0.09 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³) 8.8 cu. ft. (0.25 m³) 10.0 cu. ft. (0.28 m³) 12.5 cu. ft. (0.35 m³) 5.1 cu. ft. (0.14 m³) 7.5 cu. ft. (0.14 m³) 7.5 cu. ft. (0.21 m³)	Extended 15,010 lb. (66.7 kN) 5,980 lb. (26.6 kN) 180 degrees right foot treadle 190 degrees 18 degrees 14 degrees Weight 350 lb. (159 kg) 295 lb. (134 kg) 335 lb. (152 kg) 400 lb. (181 kg) 420 lb. (191 kg) 445 lb. (202 kg) 510 lb. (231 kg) 362 lb. (164 kg) 425 lb. (193 kg)

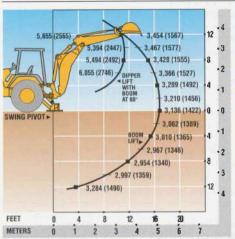
LIFT CAPACITIES * / DIMENSIONS

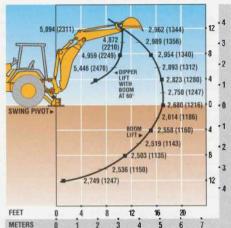
*Lift capacities are over-end values in lb. (kg) according to SAE J31. Figures listed are 87% of the maximum lift force available. Base vehicle includes counterweight.

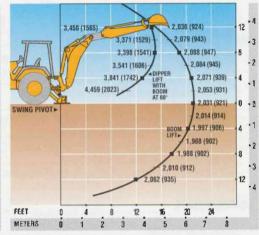
410E BACKHOE WITH STANDARD DIPPERSTICK

410E BACKHOE WITH 4 FT. (1.22 M) EXTENDABLE DIPPERSTICK, RETRACTED

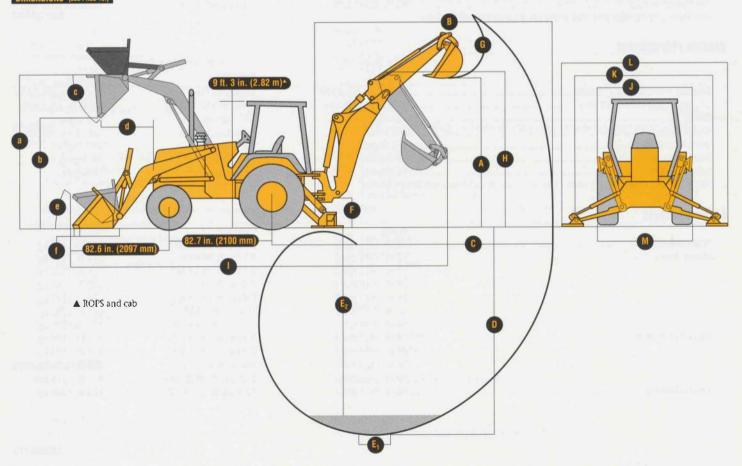
410E BACKHOE WITH 4 FT. (1.22 M) EXTENDABLE DIPPERSTICK, EXTENDED







DIMENSIONS (SEE PAGE 19.)



ACKHOE	410E		
	With Standard Backhoe*	With Extendable Dipperstick* Retracted	Extended
Loading height, truck loading position	12 ft. 6 in. (3.81 m)	12 ft. 8 in. (3.86 m)	15 ft. 6 in. (4.72 m)
Reach from center of swing mast	19 ft. 8 in. (5.99 m)	19 ft. 11 in. (6.07 m)	23 ft. 8 in. (7.21 m)
Reach from center of rear axle	23 ft. 4 in. (7.11 m)	23 ft. 7 in. (7.19 m)	27 ft. 4 in. (8.33 m)
Maximum digging depth	15 ft. 10 in. (4.83 m)	16 ft. 1 in. (4.90 m)	20 ft. (6.10 m)
Digging depth (SAE):			
(1) 2-ft, (610 mm) flat bottom	15 ft. 8 in. (4.78 m)	15 ft, 11 in. (4.85 m)	19 ft. 11 in. (6.07 m
(2) 8-ft. (2440 mm) flat bottom	14 ft. 7 in. (4.45 m)	14 ft. 11 in. (4.55 m)	19 ft. 1 in. (5.82 m)
Ground clearance, minimum	14 in. (356 mm)	14 in. (356 mm)	14 in. (356 mm)
Bucket rotation	190 degrees	190 degrees	190 degrees
Transport height	12 ft. 11 in. (3.94 m)	12 ft. 10 in. (3.91 m)	12 ft. 10 in. (3.91 m
Overall length, transport	23 ft. 11 in. (7.29 m)	23 ft. 11 in. (7.29 m)	23 ft. 11 in. (7.29 m
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)
Stabilizer spread - operating	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)
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)
Width over tires	86 in. (2.18 m)	86 in. (2.18 m)	86 in. (2.18 m)
ADER PERFORMANCE WITH BUCKET OPTIONS	1.30 cu. yd. (1.00 m³)	1.50 cu. yd. (1.15 m³)	1.25 cu. yd. (0.96 m²
Operator control	Heavy-Duty Long-Lip	Heavy-Duty Long-Lip single lever	Multipurpose dual lever
Breakout force	-	10,170 lb. (45.2 kN)	9,700 lb. (43.1 kN)
Lifting capacity, full height		7,070 lb. (3207 kg)	6,700 lb. (3039 kg)
Height to bucket hinge pin, maximum		11 ft. (3.35 m)	11 ft. (3.35 m)
		8 ft. 9 in. (2.67 m)	8 ft. 8 in. (2.64 m)
Dump clearance, bucket at 45 degrees		45 degrees	45 degrees
Bucket dump angle, maximum		31.0 in. (787 mm)	32.2 in. (818 mm)
Reach at full height, bucket at 45 degrees		· · · · · · · · · · · · · · · · · · ·	
Rollback angle at ground level	*	40 degrees	40 degrees 5.9 in. (150 mm)
Digging depth below ground, bucket level		6.2 in. (157 mm)	` '
Deining attended full beingle			
Raising time to full height		4.8 sec.	4.8 sec.
Bucket dump time	1.4 sec.	1.4 sec. 2.3 sec.	1.4 sec. 2.3 sec.

continuous	Heavy duty with lift loops Severe duty with lift loops Backhoe bucket coupler for "C" and "D" series John Deere buckets, Case buckets, and Cat buckets Extendible dipperstick, 4 ft. extension Auxiliary backhoe valve for swingers, thumbs, etc. Auxiliary backhoe valve for hammers, compactors Auxiliary backhoe plumbing for hammers, compactors	Hand throttle with fuel economy setting at 2,100 rpm Suspended foot throttle Tilt steering Horn Key start switch with electric fuel shutoff Tachometer/hourmeter, illuminated electric Fuel gauge, illuminated electric Gauge package, illuminated electric Engine coolant temperature / Transmission oil
ucker-type cooling fan	SAE controlled load lowering device valves	0 0
Enclosed safety fan guard High ambient temperature engine cooling Dual element dry-type air cleaner Muffler, underhood with curved-end exhaust stack Chrome exhaust extension Electric ether starting aid Engine coolant heater, 1,000 watts	Return-to-dig feature Single-lever control with electric clutch cutoff switch Bucket-level indicator Loader boom service lock	indicator with audible warning / Hydraulic filter restriction indicator / Torque converter oil temperature indicator / Parking brake on/ off indicator with audible warning / Seat belt
ransmission with powershift reverser and torque	Loader buckets Less bucket, with bucket pins	indicator / Mechanical-front-wheel-drive on/ off indicator / Beacon on/off indicator / Hydrau-
Fully synchronized four forward, four reverse speeds / Isolation mounted to mainframe Fransmission oil cooler	Heavy-duty buckets with bolt-on cutting edge, skid plates, and lift loops Multipurpose bucket with bolt-on cutting edge,	lic oil temperature indicator Seats and seat belts Non-suspension vinyl swivel seat without armrests Suspension vinyl swivel seat with armrests and
/ertical spin-on transmission filter Electric forward-neutral-reverse control lever with	HYDRAULIC SYSTEM	lumbar support Suspension fabric swivel seat with armrests and
neutral safety switch interlock Electric clutch cutoff on gearshift and loader levers	42 gotti (137 f) ttinia) axiat pistori pump, 1 Clo	lumbar support 2-in, seat belt with retractors
Differential lock, electric foot-actuated	Independent hydraulic reservoir	3-in, seat belt with retractors
Hydraulic service brakes	*O"-ring face seal connectors	Cab
Inboard, wet multi-disc, self adjusting and self equalizing / Conform to SAE J1473	10-micron vertical spin-on filter ELECTRICAL	Dome light Left cab door
mining/ 11111 (6411)		Right cab door
Spring applied, hydraulically released wet multi- disc / Independent of service brakes / Conforms to SAE J1473	12-volt system 65-amp alternator Single battery with 150-min, reserve capacity and	Tintud cafety alacs
Hydrostatic power steering with emergency manual mode Non-powered front axle	1,500 CCA	Fresh air intake heater/defroster/pressurizer 40,000 Btu/hr. (11.7 kW) heater Air conditioning
Mechanical-front-wheel-drive with limited slip djfferential	Blade-type multi-fused circuits	26,000 Btu/hr. (7.6 kW) output / CFC-free R134a refrigerant
Electric on/off control / Drive-shaft guard /	By-pass start safety cover on starter	95-amp alternator
Sealed axle Tires	LIGHTS The first belong driving breed lights 22 500	AM/FM/weatherband radio
	Two front halogen driving/work lights, 32,500 candlepower each	OVERALL VEHICLE
12.5/80-18 traction front tires 19.5L-24 R4 rear tires	Two additional front halogen work lights, 32,500 candlepower each Two rear halogen work lights, 32,500 candlepower each	One-piece unitized construction mainframe Vehicle tiedowns, two front and one rear Remote grease bank for front axle Rigid mounted front bumpet
Rear wheel spacets for use with chains	Two front and two rear turn signal/flashing	Front counterweights
BACKHOE	Two rear stop and tail	400 lb. (181 kg) 650 lb. (295 kg)
Backhoe with standard dipperstick, 15 ft. 10 in. digging depth	Rotating redeem	900 lb. (408 kg) 1,150 lb. (522 kg)
Backhoe controls	OPERATOR'S STATION	1,400 lb. (635 kg)
Tho level (Deele) continues	Modular-design ROPS/FOPS canopy with molded roof	Fuel tank, 36 gal. (136 L), ground level fueling Engine sideshields with sliding service access door
Four-lever (Ford) controls	Isolation mounted / Conforms to SAE J1040	Front grille screen
SHE CACAPATON THE REPORT CONTROLS	Left and right front access	Vandal protection for instrument panel, engine
backing initiop of the termination of the terminati	Slip-resistant steps and ergonomically located handholds	access doors, and fuel tank
	trantunoids	Reverse warning alarm Switchable to 97 dB(A) or 111 dB(A)
Pivoting stabilizers	Headliner	Dent-resistant rear fenders
The same provided in the same	Coat hook Built in hererous and Thermos® bottle holders	Rear fender extensions
THE TENERAL PROPERTY.	Built-in beverage and Thermos® bottle holders Built-in Operator's Manual storage compartment	Front fenders* SMV emblem
Backhoe buckets	with manual	Rental decal kit
Less bucket, with bucket pins	Interior rearview mirror	Special color paint*
Standard duty with lift loops	Outside rearview mitrors	

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 70 020, using No. 2-D fuel at 35 API gravity. No derating is required up to 10,000 feet (3050 m). 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 unit with 19.5U-24, 10 PR R4 rear tires, 11L-16, 12 PR F3 front tires, 1.30 cu. yd. (1.00 m³) loader bucket, and 24 in. x 7.5 cu. ft. (610 mm x 0.21 m³) backhoe bucket.

