

190E





Quadtronic...our engine/hydraulic management system automatically matches hydraulic output to engine output. The result is smooth, efficient operation and lower fuel bills. Adjust engine speed by touching one of the top buttons or select one of four preselected speeds with the four buttons below. Hydraulic

warm-up modes and the auto idle are also controlled by the touch of a button. To select one of three travel speeds, touch one of the bottom buttons. Now, you can regulate machine performance to match both the job and your own operating style. Just select the right mode and Quadtronic takes over.

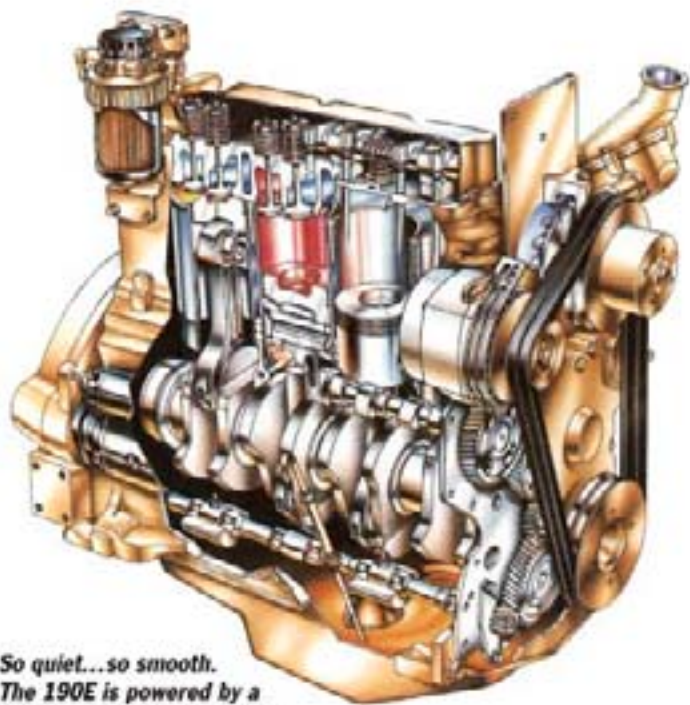
Low-effort hydraulic controls are pilot operated for precise metering and smooth operation. To save fuel, the auto-idle feature lowers engine speed to 1,300 rpm when a hydraulic function is not used for four seconds. The engine automatically resumes its preselected speed as soon as you move the control lever.



Fits you like a well-broken-in pair of jeans. Cloth-covered, fully adjustable suspension seat is designed to conform to your "personal specifications." Adjust the bottom slide until your feet rest comfortably on the pedals. Then, adjust the top slide so that your arms are supported by the armrests when your hands are on the control levers. The controllers also have an independent height adjustment. On nice days, move the upper window up and out of the way. For maximum ventilation, install the lower windshield tin storage position, open the front vent, and slide open the left- and right-side windows.



Sight lines are unobstructed. The "bent" front window and the low profile door window give you a great look at the trench. The standard, dual rearview mirrors give a panoramic view of the world behind you.



So quiet...so smooth. The 190E is powered by a John Deere-engineered and -manufactured engine. Replaceable wet-type cylinder liners are spun cast and machined to assure even heat dissipation. The dynamically balanced crankshaft is another reason why John Deere engines have a great reputation for smooth, quiet operation and long life.



Daily service is fast and easy. Sight glasses and fill-points for fuel and hydraulic oil are centrally located. Lockable service doors provide easy access to all components. Greasing hard-to-reach joints is a thing of the past with the remote lube bank.



Versatility starts here. We offer a full-line of 13 heavy-duty, general purpose, and ditching buckets. Heavy-duty reinforced top beams assure accurate ear alignment. Reinforcing provides maximum corner rigidity. T-1 steel side-cutters, two-piece moldboard, and heavy-duty wear strips are why John Deere buckets are known for strength and long life.

Hike your productivity with the Offset Boom option. Dig outside the overall machine width and beside, between, and around obstructions. The offset boom also changes from right-hand offset to left-hand offset in seconds.



This blade means business. The sturdy, hydraulic blade means faster backfilling and improved stability in uneven terrain.

SPECIFICATIONS

ENGINE

190E

Type	John Deere 4039D
Rated power	55 SAE net hp (41 kW) 60 SAE gross hp (45 kW) @ 2,200 rpm
Cylinders	4
Displacement	239 cu. in. (3.9 L)
Maximum net torque	153 lb.-ft. (207 Nm) @ 1,400 rpm
Fuel consumption, typical	0.8 to 1.8 gal./hr. (3 to 7 L/h)
Cooling fan	suction-type
Electrical system	24 volt with 45-amp alternator
Batteries (two 12 volt)	reserve capacity: 180 min.

HYDRAULIC SYSTEM

Main pumps	2 variable-displacement axial-piston open center
Maximum rated flow	2 x 25.0 gpm (2 x 94.6 L/min.)
Pilot pump	one gear
Maximum rated flow	6.2 gpm (23.5 L/min.)
Pressure setting	640 psi (4415 kPa)
System operating pressure	
Implement circuits	3,770 psi (26 000 kPa)
Travel circuits	3,980 psi (27 444 kPa)
Swing circuits	4,120 psi (28 406 kPa)
Crossover relief valve	
Blade	2,775 psi (19 140 kPa)
Dozer blade pump (optional)	one gear
Oil filtration	one 10-micron full-flow return filter with by-pass one pilot oil filter one suction filter

CYLINDERS

Boom (1)	
Bore	4.53 in. (115 mm)
Rod diameter	2.56 in. (65 mm)
Stroke	34.8 in. (885 mm)
Arm (1)	
Bore	3.74 in. (95 mm)
Rod diameter	2.56 in. (65 mm)
Stroke	35.4 in. (900 mm)
Bucket (1)	
Bore	3.35 in. (85 mm)
Rod diameter	2.17 in. (55 mm)
Stroke	28.7 in. (730 mm)

SWING MECHANISM

Swing speed	0-15 rpm
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UNDERCARRIAGE

Carrier rollers (per side)	1
Track rollers (per side)	5
Idlers (per side)	1
Shoes, triple semi-grouser (per side)	37
Track guides	front
Track adjustment	hydraulic
Travel speed	
Low	0-1.6 mph (0-2.5 km/h)
Medium	0-2.0 mph (0-3.3 km/h)
High	0-3.1 mph (0-5.0 km/h)
Drawbar pull	10,360 lb. (4,699 kg)
Tractive gradability	84% (40 deg.)
Off-level operating limit for oil sump	100% (45 deg.)

GROUND PRESSURE DATA

	With 18-in. (450 mm) triple semi-grouser shoes (recommended for rocky terrain and stumps)	With 24-in. (600 mm) triple semi-grouser shoes (recommended for general/soft terrain)
Average ground pressure		
Standard one-piece boom without dozer blade	3.49 psi (24.1 kPa)	3.10 psi (21.3 kPa)
Standard one-piece boom with dozer blade	3.70 psi (25.5 kPa)	3.30 psi (22.8 kPa)
Offset boom without dozer blade	3.73 psi (25.7 kPa)	3.60 psi (24.8 kPa)
Offset boom with dozer blade	3.91 psi (27.2 kPa)	3.80 psi (26.2 kPa)

CAPACITIES

190E

Fuel tank	35.7 gal. (135 L)
Cooling system	11.8 qt. (11.2 L)
Engine lubrication, including filter	9 qt. (8.5 L)
Hydraulic system	17.5 gal. (66.2 L)
Planetary propel drive (each)	2.4 qt. (2.3 L)
Swing drive	1.5 qt. (1.4 L)

OPERATING WEIGHTS

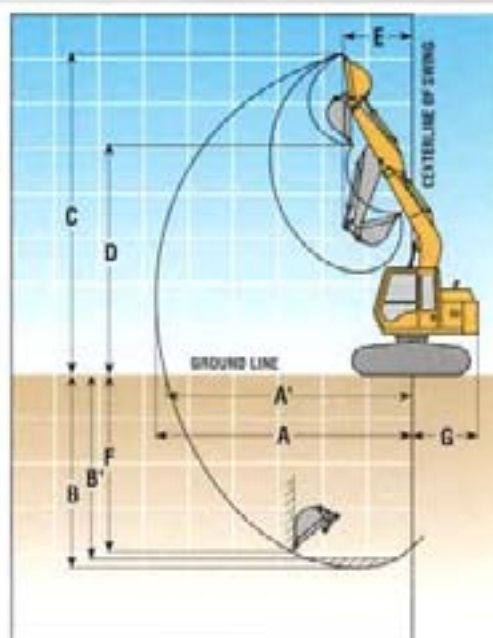
With full fuel tank; 175-lb. (79 kg) operator; blade; offset boom; counterweight for offset boom; 24-in. (600 mm) triple semi-grouser shoes; 5-ft. 4-in. (1.62 m) arm; and 0.36-cu. yd. (0.28 m³), 30-in. (760 mm), 462-lb. (210 kg) bucket 16,300 lb. (7394 kg)

COMPONENT WEIGHTS

Undercarriage equipped with triple semi-grouser shoes	
18-in. (450 mm)	
Without blade	4,938 lb. (2240 kg)
With blade	5,776 lb. (2620 kg)
24-in. (600 mm) (add)	
Without blade	357 lb. (162 kg)
With blade	5,291 lb. (2400 kg)
Upperstructure for standard one-piece boom with full fuel tank (less 1,213-lb. [550 kg] counterweight and front attachments)	
	5,519 lb. (2503 kg)
Upperstructure for offset boom with full fuel tank (less 1,323-lb. [600 kg] counterweight and front attachments)	
	5,519 lb. (2503 kg)
Standard one-piece boom (with boom and arm cylinders)	
	1,076 lb. (488 kg)
Offset boom (with boom and arm cylinders)	
	2,185 lb. (991 kg)
Boom cylinder only	
	196 lb. (89 kg)
Arm with bucket cylinder and linkage	
5 ft. 4 in. (1.62 m)	507 lb. (230 kg)
6 ft. 11 in. (2.12 m)	580 lb. (263 kg)
Leveling blade	
	838 lb. (380 kg)
Counterweight only	
For standard one-piece boom	1,213 lb. (550 kg)
For offset boom	1,323 lb. (600 kg)
0.36-cu. yd. (0.28 m ³), 30-in. (760 mm) bucket	
	462 lb. (210 kg)

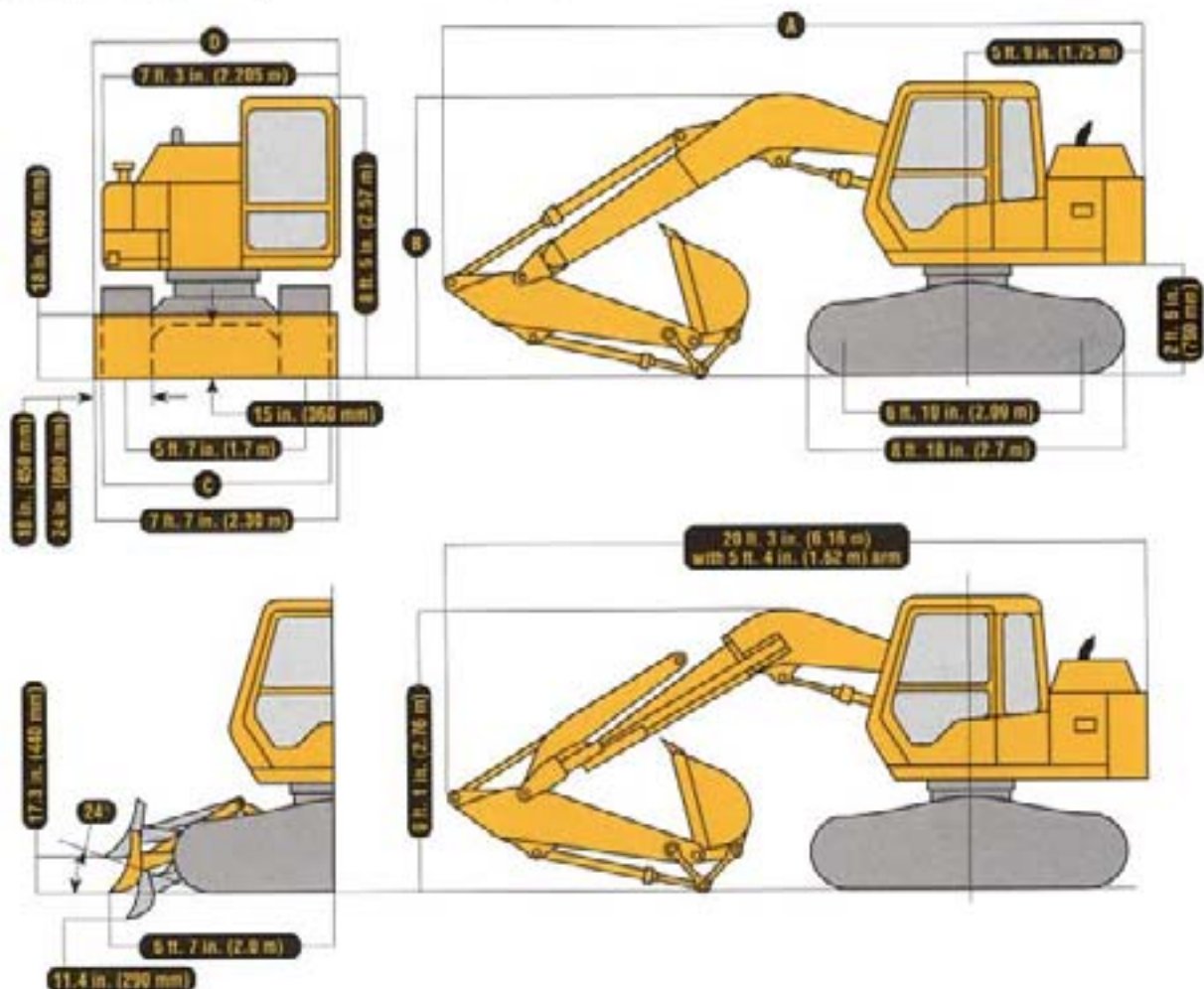
OPERATING INFORMATION

	Arm Length 5 ft. 4 in. (1.62 m)	Arm Length 6 ft. 11 in. (2.12 m)
Arm force with 0.36-cu. yd. (0.28 m ³), 30-in. (760 mm), 462-lb. (210 kg) heavy-duty bucket	8,500 lb. (57.8 kN)	7,190 lb. (52.0 kN)
Bucket tangential force with 0.36-cu. yd. (0.28 m ³), 30-in. (760 mm), 462-lb. (210 kg) heavy-duty bucket	11,185 lb. (49.8 kN)	11,185 lb. (49.8 kN)
Lifting capacity over front @ ground level 15-ft. (4.57 m) reach	2,780 lb. (1261 kg)	2,816 lb. (1277 kg)
A Maximum reach	20 ft. 8 in. (6.31 m)	22 ft. 4 in. (6.80 m)
A' Maximum reach @ ground level	20 ft. 3 in. (6.16 m)	21 ft. 10 in. (6.66 m)
B Maximum digging depth	13 ft. 7 in. (4.15 m)	15 ft. 3 in. (4.66 m)
B' Maximum digging depth @ 8-ft. (2.44 m) flat bottom	12 ft. 6 in. (3.8 m)	14 ft. 4 in. (4.37 m)
C Maximum cutting height	23 ft. 5 in. (7.15 m)	24 ft. 9 in. (7.55 m)
D Maximum dumping height	16 ft. 8 in. (5.07 m)	17 ft. 11 in. (5.47 m)
E Minimum front swing radius	5 ft. 7 in. (1.70 m)	6 ft. 9 in. (2.06 m)
F Maximum vertical wall	11 ft. 6 in. (3.50 m)	13 ft. 4 in. (4.06 m)
G Tail swing radius	5 ft. 9 in. (1.75 m)	5 ft. 9 in. (1.75 m)



DIMENSIONS

A With 5 ft. 4 in. (1.62 m) arm 19 ft. 11 in. (6.08 m)	B With 18-in. (450 mm) triple semi-grouser shoes
With 6 ft. 11 in. (2.12 m) arm 20 ft. 1 in. (6.12 m)	No blade 7 ft. 6 in. (2.28 m)
B With 5 ft. 4 in. (1.62 m) arm 8 ft. 5 in. (2.57 m)	With blade 7 ft. 9 in. (2.36 m)
With 6 ft. 11 in. (2.12 m) arm 9 ft. 4 in. (2.85 m)	With 24-in. (600 mm) triple semi-grouser shoes
C With 18-in. (450 mm) triple semi-grouser shoes 7 ft. 1 in. (2.15 m)	No blade 7 ft. 9 in. (2.36 m)
With 24-in. (600 mm) triple semi-grouser shoes 7 ft. 7 in. (2.30 m)	With blade 7 ft. 9 in. (2.36 m)

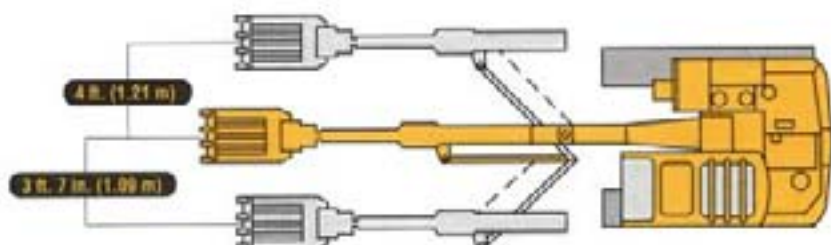


DIMENSIONS FOR OFFSET BOOM

With 5 ft. 4 in. (1.62 m) arm (not available with long arm)

	With No Boom Offset	With Offset To Left 3 ft. 7 in. (1.09 m)	With Offset To Right 4 ft. 0 in. (1.21 m)
Maximum digging depth*	13 ft. 7 in. (4.15 m)	12 ft. 2 in. (3.70 m)	12 ft. 2 in. (3.70 m)
Maximum digging depth with 8-ft. (2.44 m) flat bottom*	12 ft. 2 in. (3.70 m)	10 ft. 10 in. (3.31 m)	10 ft. 10 in. (3.31 m)
Maximum reach @ ground level	20 ft. 3 in. (6.16 m)	18 ft. 8 in. (5.70 m)	18 ft. 8 in. (5.70 m)
Maximum dumping height	16 ft. 8 in. (5.07 m)	15 ft. 6 in. (4.72 m)	15 ft. 6 in. (4.72 m)
Maximum cut outside of track with 18-in. (450 mm) triple semi-grouser shoes and 0.36-cu. yd. (0.28 m ³), 30-in. (750 mm), 462-lb. (210 kg) bucket		18.5 in. (470 mm)	21.5 in. (546 mm)

*Maximum digging depth will be less in applications where offset boom interferes with edge of trench.



LIFT CAPACITIES

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook, machine equipped with 18-in. (450 mm) shoes; 0.36-cu. yd. (0.28 m³), 30-in. (760 mm), 462-lb. (210 kg) bucket; and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine.

Load Point Height	5 ft. (1.52 m)		10 ft. (3.05 m)		15 ft. (4.57 m)		20 ft. (6.10 m)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With standard one-piece boom, 5 ft. 4 in. (1.62 m) arm, and no blade</i>								
15 ft. (4.57 m)			2,668 (1210)	2,668 (1210)				
10 ft. (3.05 m)			3,845 (1744)	3,845 (1744)	2,971 (1348)	2,530 (1148)		
5 ft. (1.52 m)			5,336 (2420)	4,432 (2010)	2,808 (1274)	2,372 (1076)		
Ground Line			5,031 (2282)	4,146 (1880)	2,667 (1210)	2,237 (1015)		
-5 ft. (-1.52 m)	7,758 (3519)	7,758 (3519)	5,010 (2273)	4,126 (1872)	2,631 (1193)	2,202 (999)		
-10 ft. (-3.05 m)			5,132 (2328)	4,286 (1944)				
<i>With standard one-piece boom, 6 ft. 11 in. (2.12 m) arm, and no blade</i>								
15 ft. (4.57 m)					2,638 (1197)	2,638 (1197)		
10 ft. (3.05 m)			3,009 (1365)	3,009 (1365)	2,909 (1320)	2,611 (1184)		
5 ft. (1.52 m)			5,493 (2492)	4,618 (2095)	2,875 (1304)	2,437 (1105)	1,753 (795)	1,473 (668)
Ground Line			5,102 (2314)	4,212 (1911)	2,704 (1227)	2,272 (1031)		
-5 ft. (-1.52 m)	6,483 (2941)	6,483 (2941)	4,998 (2267)	4,115 (1867)	2,627 (1192)	2,198 (997)		
-10 ft. (-3.05 m)	10,405 (4720)	10,405 (4720)	5,090 (2309)	4,201 (1906)				
<i>With offset boom, 5 ft. 4 in. (1.62 m) arm, and no blade</i>								
15 ft. (4.57 m)			2,756 (1250)	2,756 (1250)				
10 ft. (3.05 m)			3,803 (1725)	3,803 (1725)	2,935 (1331)	2,466 (1119)		
5 ft. (1.52 m)					2,642 (1198)	2,183 (990)		
Ground Line					2,389 (1084)	1,939 (880)		
-5 ft. (-1.52 m)			4,468 (2027)	3,567 (1618)	2,318 (1051)	1,871 (849)		
-10 ft. (-3.05 m)			4,384 (1989)	3,834 (1739)				
<i>With standard one-piece boom, 5 ft. 4 in. (1.62 m) arm, and blade</i>								
15 ft. (4.57 m)			2,668 (1210)	2,668 (1210)				
10 ft. (3.05 m)			3,845 (1744)	3,845 (1744)	3,084 (1399)	2,696 (1224)		
5 ft. (1.52 m)			5,536 (2511)	4,717 (2140)	2,920 (1324)	2,538 (1151)		
Ground Line			5,231 (2373)	4,430 (2009)	2,780 (1261)	2,403 (1090)		
-5 ft. (-1.52 m)	7,758 (3519)	7,758 (3519)	5,209 (2363)	4,411 (2001)	2,744 (1245)	2,368 (1074)		
-10 ft. (-3.05 m)			5,132 (2328)	4,571 (2073)				
<i>With standard one-piece boom, 6 ft. 11 in. (2.12 m) arm, and blade</i>								
15 ft. (4.57 m)					2,638 (1197)	2,638 (1197)		
10 ft. (3.05 m)			3,009 (1365)	3,009 (1365)	2,909 (1320)	2,777 (1260)		
5 ft. (1.52 m)			5,493 (2492)	4,902 (2224)	2,987 (1355)	2,603 (1181)	1,831 (831)	1,590 (721)
Ground Line			5,301 (2405)	4,496 (2039)	2,816 (1277)	2,438 (1106)		
-5 ft. (-1.52 m)	6,483 (2941)	6,483 (2941)	5,197 (2357)	4,399 (1995)	2,739 (1242)	2,364 (1072)		
-10 ft. (-3.05 m)	10,405 (4720)	10,405 (4720)	5,290 (2400)	4,486 (2035)				
<i>With offset boom, 5 ft. 4 in. (1.62 m) arm, and blade</i>								
15 ft. (4.57 m)			2,756 (1250)	2,756 (1250)				
10 ft. (3.05 m)			3,803 (1725)	3,803 (1725)	3,048 (1383)	2,631 (1193)		
5 ft. (1.52 m)					2,755 (1250)	2,349 (1066)		
Ground Line					2,502 (1135)	2,105 (955)		
-5 ft. (-1.52 m)			4,667 (2117)	3,851 (1747)	2,431 (1103)	2,037 (924)		
-10 ft. (-3.05 m)			4,384 (1989)	4,119 (1868)				

BUCKETS

A full line of buckets is offered to meet a wide variety of applications. Tooth selection includes either the John Deere Fanggs® tooth or Tiger, Twin Tiger, Flare, Star, or Long Rock tooth. Replaceable cutting edges are available through John Deere parts.

Type Bucket	Bucket Width		Bucket Capacity*		Weight		Bucket Dig Force	Arm Dig Force 5 ft. 4 in. (1.62 m)		Arm Dig Force 6 ft. 11 in. (2.12 m)		Bucket Tip Radius		No. Teeth	
	In.	mm	cu. yd.	m ³	lb.	kg		lb.	kN	lb.	kN	in.	mm		
Heavy-Duty	18	460	0.18	0.14	376	171	11,185	49.8	8,500	37.8	7,190	32.0	39.0	991	4
Plate Lip	24	610	0.27	0.21	450	204	11,185	49.8	8,500	37.8	7,190	32.0	39.0	991	5
	30	760	0.36	0.28	462	210	11,185	49.8	8,500	37.8	7,190	32.0	39.0	991	6
	36	915	0.45	0.34	484	220	11,185	49.8	8,500	37.8	7,190	32.0	39.0	991	7
	42	1065	0.65	0.50	509	231	11,185	49.8	8,500	37.8	7,190	32.0	39.0	991	8
Ditching	42	1065	0.53	0.41	472	214	12,465	55.4	8,845	39.3	7,435	33.1	35.0	889	0
	48	1220	0.60	0.46	492	223	12,465	55.4	8,845	39.3	7,435	33.1	35.0	889	0
	60	1525	0.75	0.57	564	256	12,465	55.4	8,845	39.3	7,435	33.1	35.0	889	0

*All capacities are SAE heaped ratings.

	190E		190E		190E
ENGINE		Fuel cap	●	Interior light	●
Auto-idle system	●	Hydraulic reservoir	●	Mode selectors (illuminated)	●
Batteries (two 12 volt), 180-min. (1,250 CCA) reserve capacity	●	Service doors	●	Power modes - four	●
Dual element dry-type air filter	●	Toolbox	●	Travel modes - three with automatic shift	●
Electric ether starting aid	●	FRONT ATTACHMENTS		Monitor system with alarm features	●
Enclosed fan guard	●	Arm, 5 ft. 4 in. (1.62 m)	●	Auto-idle indicator light	●
Conforms to SAE J1306	●	Arm, 6 ft. 11 in. (2.12 m)	●	Engine air cleaner restriction indicator light	●
Engine coolant to -34°F (-37°C)	●	Bucket-to-arm clearance adjustable bushing	●	Engine coolant temperature indicator light with audible alarm	●
Fuel/water separator	●	Centralized lubrication system	●	Engine oil pressure indicator light with audible alarm	●
Full-flow oil filter	●	Dirt seals on all bucket pins	●	Fluid level	●
Isolation mounted	●	Attachment quick couplers	●	Engine coolant level indicator light	●
John Deere quick release fuel filter	●	Boom cylinder with plumbing to mainframe for no-boom-arm option	●	Hydraulic oil level indicator light	●
Key start switch with electric fuel shutoff	●	Buckets	●	Hydraulic warm-up indicator light	●
Radiator trash screen	●	Bucket teeth	●	Low alternator charge indicator light	●
Underhood muffler with vertical curved end exhaust stack	●	Ditching	●	Low fuel indicator light	●
		Heavy duty	●	Work-lights-on indicator light	●
HYDRAULIC SYSTEM		Dozer blade	●	Motion alarm with cancel switch	●
Auxiliary hydraulic valve section	●	Laser depth systems	●	Conforms to SAE J994	●
Auxiliary pilot and electric controls	●	No-boom-arm option	■	Propel pedals and levers	●
Controlled load lowering valves for boom down	●	Offset boom option	■	Seat belt, 2 in. (51 mm)	●
Hydraulic filter restriction indicator kit	●	OPERATOR'S STATION		Seat belt, 3 in. (76 mm)	■
		Adjustable independent control positions (levers-to-seat, seat-to-pedals)	●	Tinted glass	●
UNDERCARRIAGE		Alternate pilot control pattern	●	AM/FM radio	●
Planetary drive	●	Deluxe cloth seat with armrests	●	Defroster fan	●
Propel motor shields	●	Front windshield wiper	●	Window vandal protection covers	●
Three-speed propel with automatic shift	●	Constant speed	●	24- to 12-volt D.C. radio converters	■
Track guides, front idler	●	Intermittent speed	●	ELECTRICAL	
Upper carrier roller	●	Gauges (illuminated)	■	Blade-type multi-fused circuits	●
Triple semi-grouser shoes, 18 in. (450 mm)	●	Engine coolant	■	By-pass start safety cover on starter	●
Triple semi-grouser shoes, 24 in. (600 mm)	●	Fuel	■	Positive terminal battery covers	●
UPPERSTRUCTURE		Heater, 20,000 Btu/hr (5.9 kW) with blower fan	●	LIGHTS	
Right- and left-hand mirrors	●	Horn, electric	●	Work lights	●
Toolbox	●	Hourmeter, electric	●	Halogen	●
Vandal locks with ignition key	●	Hydraulic warm-up control	●	One mounted on boom	●
Cab door	●			One mounted on frame	●

KEY: ● Standard equipment ■ Optional or special equipment

See your John Deere dealer for further information.

THE JDAdvantEDGE

JDAdvantEdge is a wealth of support programs, parts systems, and dealer resources, all designed to give you the edge. This package of special benefits is a major reason why John Deere offers the "best value" for your equipment dollar.

Best parts support - Twelve regional parts depots in North America and others around the world put parts support near your job no matter where in the world it is.

A computerized FLASH™ parts locating system linking these depots to dealerships can find out-of-stock parts in a hurry and get them into your hands fast ... within 24 hours, across North America.

Best service backup - Dealer service technicians are regularly schooled, at our modern facility in Davenport, Iowa, or by professionals in the field, to diagnose quickly and repair efficiently.

If they're stumped, a phone call to DTAC (Dealer Technical Assistance Center) puts them in touch with a staff of pros at the factory who help them find a solution quickly.

Best dealers - Your John Deere dealer is an important contributor to the JDAdvantEdge. He or she is committed to being the best equipment supplier you can work with.

This is a dollars-and-cents commitment in parts inventory, in service facilities, in field-service trucks. It's a sweat-and-blood commitment in dedicated, skilled, and highly trained and motivated personnel in each and every department at the dealership.

But what sets John Deere dealers apart from all the rest is something more, a factor somewhat difficult to measure ... a caring attitude, and a sincere desire to be the best at meeting the needs of each individual customer.

John Deere Finance Plans - Whether you rent, lease, or buy John Deere equipment, your dealer can explain the John Deere options available. One-stop options that let you free up operating capital, keep other lines of credit open. More solid benefits of the JDAdvantEdge.

Best protection - In addition to the new equipment warranty that meets or exceeds the competition, SECURE® extended coverage, an optional service product for John Deere equipment, is available for repair coverage after the warranty concludes. Full machine or power train coverage is available for a variety of time periods to meet your needs. Consult your dealer for availability and details.



Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 62708. No diving is required up to 6,000 ft. (1,800 m) altitude. Gross power is without cooling fan.

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with PCSA and SAE standards. Except where otherwise noted, these specifications are based on a unit with 0.36-cu yd. (0.28 m³), 20-hp. (740 mm), HD-0, (210 kg) bucket, 24-in. (600 mm) triple semi-grouser shoes, counterweight, 5-ft. 4-in. (1.62 m) arm, full-foot tank, 175-lb. (79 kg) operator, and standard equipment.

