

ENGINE		315SE
Type	John Deere 4045T – Turbocharged	
Rated power @ 2,200 rpm	88 SAE gross hp (66 kW)	
	80 SAE net hp (60 kW)	
Cylinders	4	
Displacement	276 cu. in. (4.524 L)	
Fuel consumption, typical	1.3 to 2.3 gal./hr. (4.9 to 8.7 L/h)	
Torque rise	42 percent	
Maximum net torque	271 lb.-ft. (368 Nm)	
Lubrication	pressure system with spin-on filter and cooler	
Air cleaner	dual stage dry type with safety element and precleaner	
Electrical system	12 volt with 65-amp alternator	
Sucker-type cooling fan		
TRANSMISSION		four-speed, helical cut gear, collar shift transmission synchronized in all gears with hydraulic reverser
Torque converter, single stage, dual phase with 2.63:1 stall ratio		
11 in. (280 mm)		
Travel speeds with 16.9-28 rear tires		Forward Reverse
Gear 1		3.8 mph (6.1 km/h) 4.2 mph (6.8 km/h)
Gear 2		6.3 mph (10.1 km/h) 7.0 mph (11.3 km/h)
Gear 3		15.3 mph (24.6 km/h) 17.1 mph (27.5 km/h)
Gear 4		25.8 mph (41.5 km/h) 28.8 mph (46.3 km/h)
FINAL DRIVES		heavy-duty, inboard planetary final drives evenly distribute shock loads over three gears
BRAKES		hydraulic wet disk, mounted inboard, self adjusting and self equalizing
CAPACITIES		
Fuel tank (with ground level fueling)		36 gal. (136 L)
Engine coolant		17 qt. (16 L)
Engine oil including filter		9 qt. (8.5 L)
Torque converter and transmission		15 qt. (14 L)
Hydraulic system		24 gal. (91 L)
Rear axle		3.5 gal. (13 L)
Mechanical-front-wheel-drive axle		2.3 gal. (8.5 L)
STEERING		hydrostatic power steering and emergency steering conform to ISO5010
Non-powered axle		
Curb turning radius with brakes		11 ft. 9 in. (3.57 m)
Without brakes		13 ft. 3 in. (4.04 m)
Bucket clearance circle with brakes		31 ft. 6 in. (9.61 m)
Without brakes		34 ft. 7 in. (10.55 m)
Steering wheel turns, stop to stop		2.3 to 3.0
Mechanical-front-wheel-drive		
Curb turning radius with brakes		10 ft. 11 in. (3.34 m)
Without brakes		13 ft. 8 in. (4.17 m)
Bucket clearance circle with brakes		29 ft. 9 in. (9.07 m)
Without brakes		35 ft. 3 in. (10.74 m)
Steering wheel turns, stop to stop		2.5
Axle oscillations stop to stop, both axles		22 degrees
Axle ratings (SAE J43)		
Front		18,860 lb. (8555 kg)
Rear		14,700 lb. (6670 kg)
HYDRAULIC SYSTEM		
System		open center
Pressure		
Backhoe		3,625 psi (25 000 kPa)
Loader		3,625 psi (25 000 kPa)
Pump		gear type, tandem with unloader
Flow @ 2,200 rpm		
Backhoe		36 gpm (136 L/min.)
Loader		28 gpm (106 L/min.)
Filter, return oil		10-micron, spin-on enclosed replaceable element

CYLINDERS**315SE**

	<i>Bore</i>	<i>Stroke</i>	<i>Rod</i>
Loader boom (2)	3.15 in. (80 mm)	31.1 in. (790 mm)	1.97 in. (50 mm)
Loader bucket (1)	3.15 in. (80 mm)	33.7 in. (856 mm)	1.77 in. (45 mm)
Backhoe boom (1)	4.72 in. (120 mm)	31.3 in. (795 mm)	2.20 in. (56 mm)
Backhoe crowd (1)	4.53 in. (115 mm)	23.9 in. (607 mm)	2.48 in. (63 mm)
Backhoe bucket (1)	3.54 in. (90 mm)	31.9 in. (810 mm)	2.20 in. (56 mm)
Backhoe swing (2)	3.54 in. (90 mm)	10.9 in. (278 mm)	1.97 in. (50 mm)
Backhoe extendable dipperstick (1)	2.76 in. (70 mm)	42.0 in. (1067 mm)	1.77 in. (45 mm)
Backhoe stabilizer (2)	3.54 in. (90 mm)	19.7 in. (500 mm)	1.97 in. (50 mm)
Steering (1) non-powered axle	1.97 in. (50 mm)	9.49 in. (241 mm)	0.98 in. (25 mm)
Steering (1) MFWD	2.56 in. (65 mm)	8.27 in. (210 mm)	1.42 in. (36 mm)

TIRES

	<i>Rear</i>	<i>Front</i>
With non-powered front axle	16.9-24, 8 PR R4	11L-15, 8 PR F3
	16.9-28, 10 PR R4	11L-16, 12 PR F3
	19.5L-24, 8 PR R4	11L-16, 12 PR F3
With mechanical-front-wheel-drive	16.9-28, 10 PR R4	12.5/80-18, 10 PR
	19.5L-24, 8 PR R4	12.5/80-18, 10 PR

SAE OPERATING WEIGHTS

Standard	14,700 lb. (6670 kg)
Cab adds	580 lb. (263 kg)
Mechanical-front-wheel-drive with tires adds	485 lb. (220 kg)
Extendable dipperstick excluding required counterweight adds	490 lb. (222 kg)
Optional 400-lb. counterweight adds	400 lb. (181 kg)
Optional 650-lb. counterweight adds	650 lb. (295 kg)
Optional 250-lb. bolt-on counterweight adds	250 lb. (113 kg)
Backhoe bucket coupler adds	138 lb. (63 kg)

See backhoe and loader performance data for bucket weights.

LOADER BUCKETS

	<i>Width</i>	<i>Heaped Capacity</i>	<i>Weight</i>
Heavy-duty long lip	92 in. (2340 mm)	1.30 cu. yd. (1.00 m ³)	1,050 lb. (476 kg)
Multipurpose	86 in. (2180 mm)	1.12 cu. yd. (0.86 m ³)	1,450 lb. (658 kg)
	92 in. (2340 mm)	1.25 cu. yd. (0.96 m ³)	1,550 lb. (703 kg)

Auxiliary cutting edge and skid shoes are standard on all buckets.

BACKHOE PERFORMANCE

	<i>With Standard Backhoe*</i>	<i>With Extendable Dipperstick*</i>	
		<i>Retracted</i>	<i>Extended</i>
Digging force, bucket cylinder	11,990 lb. (53.3 kN)	12,158 lb. (54.1 kN)	12,158 lb. (54.1 kN)
Digging force, crowd cylinder	8,090 lb. (36.0 kN)	7,796 lb. (34.7 kN)	5,628 lb. (25.0 kN)
Swing arc	180 degrees	180 degrees	180 degrees
Operator control	two levers	right foot treadle	right foot treadle
Bucket rotation	190 degrees	190 degrees	190 degrees
Leveling angle	8 degrees	8 degrees	8 degrees

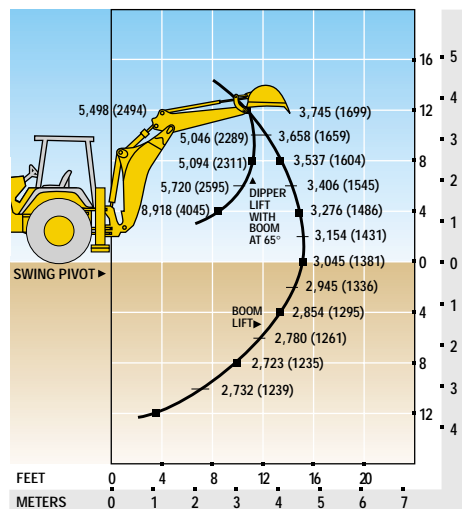
*Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 mm x 0.21 m³) bucket.**BACKHOE BUCKETS**

	<i>Width</i>	<i>Capacity</i>	<i>Weight</i>
Standard duty	24 in. (610 mm)	7.5 cu. ft. (0.21 m ³)	350 lb. (159 kg)
Heavy duty with lift loop	12 in. (305 mm)	3.3 cu. ft. (0.09 m ³)	295 lb. (134 kg)
	18 in. (457 mm)	5.1 cu. ft. (0.14 m ³)	335 lb. (152 kg)
	24 in. (610 mm)	7.5 cu. ft. (0.21 m ³)	400 lb. (181 kg)
	24 in. (610 mm)	8.8 cu. ft. (0.25 m ³)	420 lb. (191 kg)
	30 in. (762 mm)	10.0 cu. ft. (0.28 m ³)	445 lb. (202 kg)
	36 in. (914 mm)	12.5 cu. ft. (0.35 m ³)	510 lb. (231 kg)
Severe duty with lift loop	18 in. (457 mm)	5.1 cu. ft. (0.14 m ³)	362 lb. (164 kg)
	24 in. (610 mm)	7.5 cu. ft. (0.21 m ³)	425 lb. (193 kg)
	24 in. (610 mm)	8.8 cu. ft. (0.25 m ³)	455 lb. (206 kg)
	30 in. (762 mm)	10.0 cu. ft. (0.28 m ³)	475 lb. (215 kg)
Ditch cleaning	36 in. (914 mm)	12.5 cu. ft. (0.35 m ³)	510 lb. (231 kg)

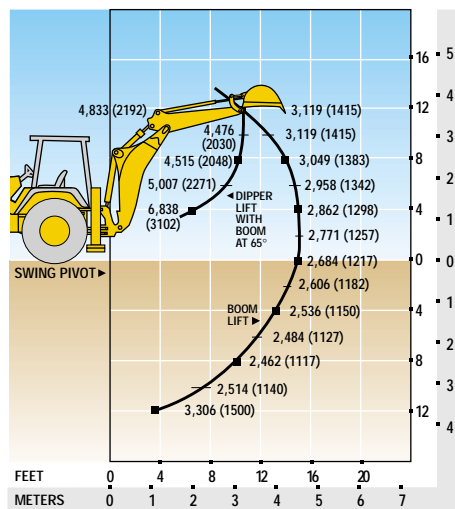
LIFT CAPACITIES * / DIMENSIONS

*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.

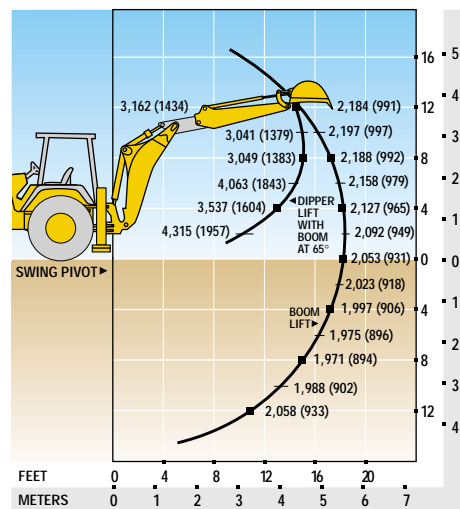
**315SE BACKHOE WITH
STANDARD DIPPERSTICK**



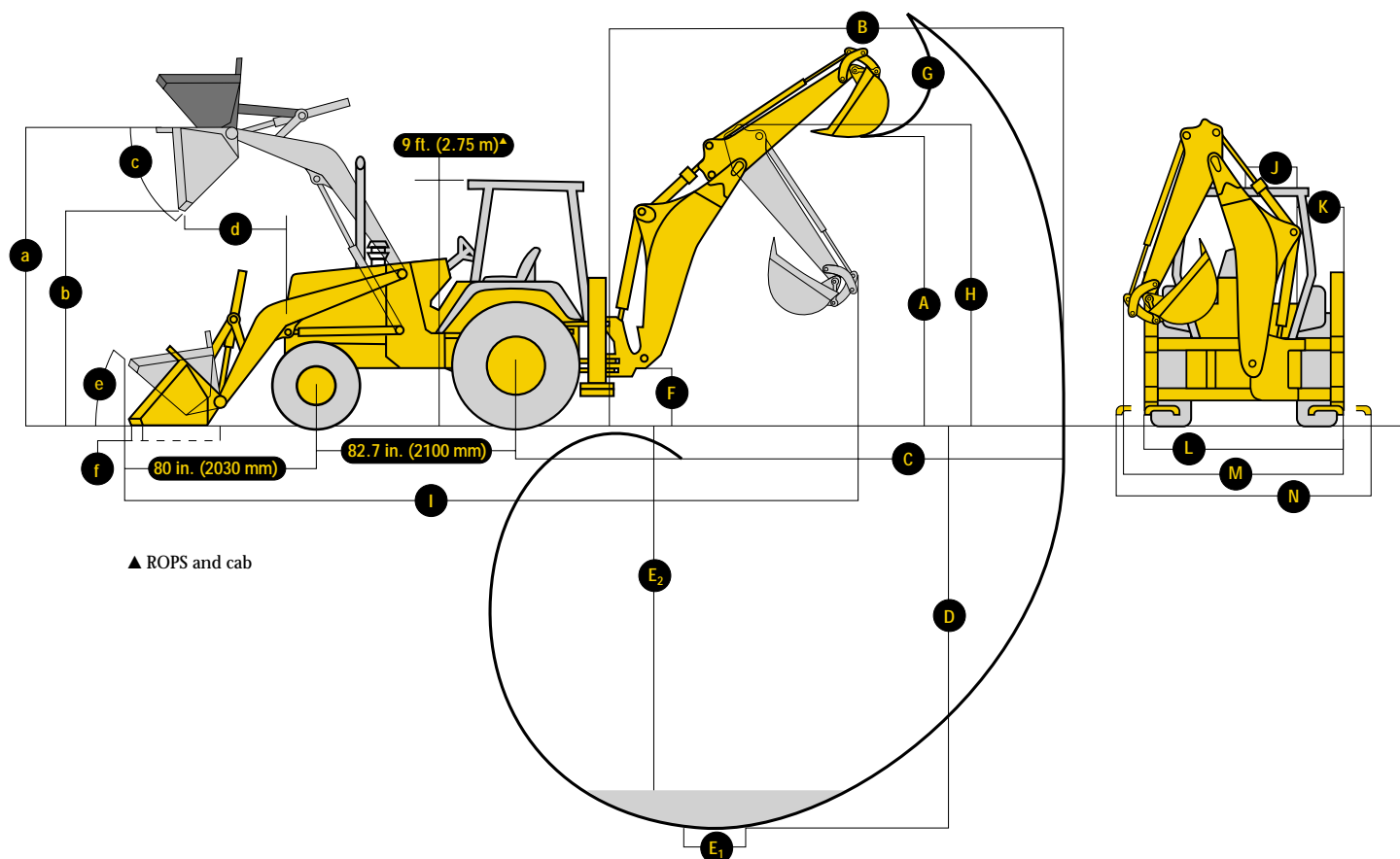
**315SE BACKHOE WITH 3-FT. 6-IN. (1.07 M)
EXTENDABLE DIPPERSTICK, RETRACTED**



**315SE BACKHOE WITH 3-FT. 6-IN. (1.07 M)
EXTENDABLE DIPPERSTICK, EXTENDED**



DIMENSIONS (SEE PAGE 7.)



BACKHOE

315SE

	<i>With Standard Backhoe*</i>	<i>With Extendable Dipperstick*</i>	
		<i>Retracted</i>	<i>Extended</i>
A Loading height, truck loading position	11 ft. 8 in. (3.56 m)	11 ft. 9 in. (3.58 m)	14 ft. 3 in. (4.34 m)
B Reach from center of swing pivot	18 ft. 1 in. (5.56 m)	18 ft. 5 in. (5.61 m)	21 ft. 9 in. (6.63 m)
C Reach from center of rear axle	22 ft. 8 in. (6.91 m)	23 ft. (7.01 m)	26 ft. 4 in. (8.03 m)
D Maximum digging depth	14 ft. 1 in. (4.29 m)	14 ft. 7 in. (4.42 m)	18 ft. (5.49 m)
E Digging depth (SAE):			
(1) 2-ft. (610 mm) flat bottom	13 ft. 11 in. (4.24 m)	14 ft. 5 in. (4.40 m)	17 ft. 10 in. (5.44 m)
(2) 8-ft. (2440 mm) flat bottom	12 ft. 11 in. (3.94 m)	13 ft. 5 in. (4.09 m)	17 ft. 1 in. (5.21 m)
F Ground clearance, minimum.....	13.8 in. (350 mm)	13.8 in. (350 mm)	13.8 in. (350 mm)
G Bucket rotation.....	190 degrees	190 degrees	190 degrees
H Transport height.....	12 ft. (3.67 m)	11 ft. 11 in. (3.48 m)	11 ft. 11 in. (3.48 m)
I Overall length, transport.....	17 ft. 3 in. (5.26 m)	17 ft. 3 in. (5.26 m)	17 ft. 3 in. (5.26 m)
J Side-shift from tractor centerline.....	22.9 in. (582 mm)	22.9 in. (582 mm)	22.9 in. (582 mm)
K Wall to swing centerline	22.8 in. (580 mm)	22.8 in. (580 mm)	22.8 in. (580 mm)
L Stabilizer width – transport with ROPS.....	7 ft. 7 in. (2.32 m)	7 ft. 7 in. (2.32 m)	7 ft. 7 in. (2.32 m)
M Overall width (less loader bucket).....	91 in. (2.32 m)	93 in. (2.36 m)	93 in. (2.36 m)
N Stabilizer overall width – operating	7 ft. 7 in. (2.32 m)	7 ft. 7 in. (2.32 m)	7 ft. 7 in. (2.32 m)

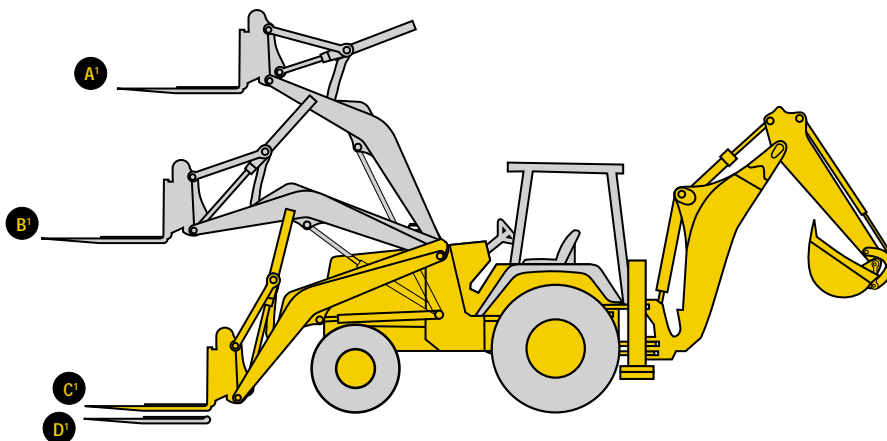
*Backhoe specifications are with 24 in. x 7.5 cu. ft. (610 mm x 0.21 m³) bucket.

LOADER PERFORMANCE WITH BUCKET OPTIONS

	<i>1.30 cu. yd. (1.00 m³) Heavy-Duty Long Lip</i>	<i>1.12 cu. yd. (0.86 m³) Multipurpose</i>	<i>1.25 cu. yd. (0.96 m³) Multipurpose</i>
Operator control.....	single lever	single lever	single lever
Breakout force	8,900 lb. (39.6 kN)	8,325 lb. (37.0 kN)	8,300 lb. (36.9 kN)
Lifting capacity, full height.....	7,200 lb. (3266 kg)	5,900 lb. (2676 kg)	6,700 lb. (3040 kg)
a Height to bucket hinge pin, maximum	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. 8 in. (2.64 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
d Reach at full height, bucket at 45 degrees	30.1 in. (765 mm)	32.2 in. (818 mm)	32.2 in. (818 mm)
e Rollback angle at ground level.....	40 degrees	40 degrees	40 degrees
f Digging depth below ground, bucket level.....	8.1 in. (206 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.
Bucket dump time	1.1 sec.	1.1 sec.	1.1 sec.
Bucket lowering time (power down).....	1.9 sec.	1.9 sec.	1.9 sec.

LIFT CAPACITY WITH QUICK COUPLER/FORKS

A Maximum height	5,038 lb. (2287 kg)
B Maximum reach	7,462 lb. (3388 kg)
C At ground line	9,853 lb. (4473 kg)
D Below ground line	4.4 in. (112.7 mm) to bottom of tine / 2.7 in. (68.3 mm) to top of tine



	315SE		315SE		315SE
ENGINE					
John Deere Model 4045T – 4.5 liter, 80 SAE net hp turbocharged, isolation mounted	●	Standard duty with lift loops	■	Suspended foot throttle	●
Vertical spin-on engine oil filter	●	Heavy duty with lift loops	■	Tilt steering	■
Spin-on John Deere fuel filter	●	Severe duty with lift loops	■	Horn	●
Oil-to-water engine oil cooler	●	Backhoe bucket coupler for “C” and “D” series John	■	Key start switch with electric fuel shutoff	●
Antifreeze, –34°F (–37°C)	●	Deere buckets, Case buckets, and Cat buckets	■	Hourmeter, illuminated electric	●
Coolant recovery tank	●	Extendable dipperstick, 3 ft. 6 in. extension	■	Tachometer/hourmeter, illuminated electric	■
Serpentine belt with automatic belt tensioner	●	Auxiliary backhoe valve for swingers, thumbs, etc.	■	Fuel gauge, illuminated electric	●
Sucker-type cooling fan	●	Auxiliary backhoe valve for hammers, compactors	■	Gauge package, illuminated electric	■
Enclosed safety fan guard	●	Auxiliary backhoe plumbing for hammers, compactors	■	Engine coolant temperature / Transmission oil temperature / Alternator volts / Fuel gauge	●
High ambient temperature engine cooling	■	SAE controlled load lowering device valves	■	Monitor system with audible and visual warning	●
Dual element dry-type air cleaner	●	LOADER		Engine air filter restriction indicator / Alternator indicator / Engine coolant temperature indicator with audible warning / Engine oil pressure indicator with audible warning / Hydraulic filter restriction indicator / Torque converter oil temperature indicator / Parking brake on/off indicator with audible warning / Seat belt indicator / Mechanical-front-wheel-drive on/off indicator / Beacon on/off indicator	●
Muffler, underhood with curved-end exhaust stack	●	Hydraulic self leveling	●	Seats and seat belts	●
Chrome exhaust extension	●	Return-to-dig feature	●	Non-suspension vinyl swivel seat without armrests	■
Electric ether starting aid	■	Single-lever control with electric clutch cutoff switch	●	Air suspension fabric swivel seat with armrests, lumbar support, and adjustable backrest	■
Engine coolant heater, 1,000 watts	■	Bucket-level indicator	●	Suspension vinyl swivel seat with armrests, lumbar support, and adjustable backrest	■
POWER TRAIN		Loader boom service lock	■	Suspension fabric swivel seat with armrests, lumbar support, and adjustable backrest	■
Transmission with powershift reverser and torque converter	●	Auxiliary loader hydraulics with two-lever control	■	2-in. seat belt with retractors	●
Fully synchronized four forward, four reverse speeds / Isolation mounted to mainframe	●	Loader front coupler	■	3-in. seat belt with retractors	■
Powershift transmission with torque converter	■	Loader buckets	●	Cab	■
Four forward, three reverse speeds / Isolation mounted to mainframe	■	Less bucket, with bucket pins	●	Headliner	●
Transmission oil cooler	●	Heavy-duty buckets with bolt-on cutting edge, skid plates, and lift loops	●	Dome light	■
Vertical spin-on transmission filter	●	Multipurpose buckets with bolt-on cutting edge, skid plates, and lift loops	●	Left cab door	●
Electric forward-neutral-reverse control lever with neutral safety switch interlock	●	HYDRAULIC SYSTEM		Right cab door	●
Electric clutch cutoff on gearshift and loader levers	●	36 gpm (136 L/min.) tandem gear pump, open center system	●	Tinted safety glass	●
Differential lock, electric foot-actuated	●	Independent hydraulic reservoir	●	Two front and one rear windshield wipers	●
Planetary final drives	●	Hydraulic oil cooler	●	Front windshield washer	■
Hydraulic service brakes	●	“O”-ring face seal connectors	●	Fresh air intake heater/defroster/pressurizer	●
Inboard, wet multi-disc, self adjusting and self equalizing / Conform to SAE J1473	●	10-micron vertical spin-on filter	●	40,000 Btu/hr. (11.7 kW) heater	■
Parking/emergency brake with electric switch control	●	Ride control system (automatic type)	●	Air conditioning	■
Spring applied, hydraulically released wet multi-disc / Independent of service brakes / Conforms to SAE J1473	●	ELECTRICAL		26,000 Btu/hr. (7.6 kW) output / CFC-free R134a refrigerant	■
Hydrostatic power steering with emergency manual mode	●	12-volt system	●	95-amp alternator	●
Non-powered front axle	●	65-amp alternator	●	AM/FM/weatherband radio	■
Mechanical-front-wheel-drive with limited slip differential	■	Single battery with 150-min. reserve capacity and 750 CCA	●	OVERALL VEHICLE	
Electric on/off control / Drive-shaft guard / Sealed axle	■	Dual batteries with 300-min. reserve capacity and 1,500 CCA	●	One-piece unitized construction mainframe	●
Tires	●	Positive terminal battery cover	●	Vehicle tie-downs, two front and one rear	●
11L-15 F3 front tires	■	Blade-type multi-fused circuits	●	Remote grease bank for front axle	●
11L-16 F3 front tires	■	By-pass start safety cover on starter	■	Rigid mounted front bumper	●
12.5/80-18 traction front tires	■	LIGHTS		Front counterweights	■
16.9-24 R4 rear tires	■	Two front halogen driving/work lights, 32,500 candlepower each	●	400 lb. (181 kg)	■
19.5L-24 R4 rear tires	■	Two additional front halogen work lights, 32,500 candlepower each	●	650 lb. (295 kg)	■
Rear wheel spacers for use with chains	■	Two rear halogen work lights, 32,500 candlepower each	●	900 lb. (408 kg)	■
BACKHOE		Two front and two rear turn signal/flashing	●	1,150 lb. (522 kg)	■
Backhoe with standard dipperstick, 14 ft. 6 in. digging depth	●	Two rear stop and tail	●	1,400 lb. (635 kg)	■
Backhoe controls	●	Two rear reflectors	●	Fuel tank, 36 gal. (136 L), ground level fueling	●
Two-lever (Deere) controls	■	Rotating beacon	■	Engine sideshields with sliding service access door	●
Three-lever (Case) controls	■	Light guards*	■	Front grille screen	●
Four-lever (Ford) controls	■	OPERATOR'S STATION		Vandal protection for instrument panel, engine access doors, and fuel tank	●
SAE excavator two-lever controls	■	Modular-design ROPS/FOPS canopy with molded roof	●	Reverse warning alarm	●
Backhoe transport lock lever	●	Isolation mounted / Conforms to SAE J1040	●	Switchable to 97 dB(A) or 111 dB(A)	●
Swing lock pin stored in operator's station	●	Left and right front access	●	Dent-resistant rear fenders	●
Stabilizer valve with two-direction anti-drift valves	●	Slip-resistant steps and ergonomically located handholds	●	Rear fender extensions	■
Pivoting stabilizers	●	Molded floor mat	●	Front fenders*	■
With dirt pads	●	Headliner	●	SMV emblem	■
With reversible pads	■	Coat hook	●	Rental kit	■
Stabilizer cylinder guards	■	Built-in beverage and Thermos® bottle holders	●	Special color paint*	■
Backhoe buckets	●	Built-in Operator's Manual storage compartment with manual	■	Bottom guard*	■
Less bucket, with bucket pins	●	Interior rearview mirror	●		
		Outside rearview mirrors	●		
		Hand throttle with fuel economy setting at 2,100 rpm	●		

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 16.9-28, 8 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.

