245 P

Excavator

JOHN DEERE





SIZABLE SOLUTION FOR REAL-WORLD ACTION

Whether your work is in urban renewal, underground utilities, or street repair, the John Deere 245 P-Tier Excavator is purpose-built to deliver legendary performance. Reduced-tail-swing design, ease of operation, and proven components are just a few of the customer-inspired details that have earned this mid-size muscle a well-deserved reputation in the industry and on jobsites just like yours. Plus a versatile range of production-boosting standard advantages like a three-pump hydraulic system will help you realize all the tasks you can complete in your corner of the work world.



REDUCED-TAIL-SWING

MODEL EASILY FITS IN

FEATURES



Dial it up
Multi-language LCD monitor and rotary dial provide intuitive access to a wealth of information and functions. Just turn and tap to select work mode, access operating info, check maintenance intervals, source diagnostic codes, adjust cab temperature, and tune the radio. Plus much more.

Close-quarter specialist
Maneuverable reduced-tail-swing model fits in tight or crowded spaces, minimizing the risk of damage to the machine or your surroundings.

Put technology to work
John Deere Powerwise Plus™ technology delivers on-demand power. Precise pump flow when pilot controls are metered provides reliable, fuel-efficient machine performance.

Take control
Ergonomically correct short-throw pilot levers enable smooth, predictable fingertip control with less movement or effort. Sliding switch allows proportional speed control, for easy fingertip command of standard auxiliary hydraulics, maximizing machine versatility.

See it like never before
Integrated into the main monitor, optional right rear left camera system with additional LED surround lighting work together to supplement 270-degree visibility of the area around the machine, even in low-light conditions.

Comfort in the cab
Spacious and well-appointed cab features standard rearview camera for enhanced awareness. Air-suspension heated seat helps keep operators comfortably supported even if the weather turns cold.

Go with the flow
Unique three-pump hydraulic system provides increased flow over two-pump designs. The third pump supplies additional hydraulic oil to the swing circuit as demanded, to maximize productivity without depleting oil reserves, slowing other functions, or sacrificing fuel economy.

Added leverage
When the going gets tough, simply press the standard power-boost button on the right-hand control and muscle through.

DPF no more
Efficient Isuzu engine burns particulate matter in the cylinder during combustion, eliminating ash-service intervals and regenerations, for EPA Final Tier 4/EU Stage IV aftertreatment without the need for a diesel particulate filter (DPF).

You'll be a fan
Highly efficient heavy-duty cooling system keeps things cool, even in tough environments or high altitudes. Cool-on-demand suction-type fan helps reduce material buildup and maintenance.













3-PUMP HYDRAULIC SYSTEM MAXIMIZES PRODUCTIVITY

Uptime optimizers
Vertical spin-on fuel and engine oil filters are positioned for streamlined maintenance. Grouped service points and fluid-level sight gauges ease routine checks. Battery-disconnect switch in the rear door behind the cab helps extend battery life.

Precision Construction
This suite of construction technology delivers **Productivity Solutions** to help you get more done, more efficiently. In-base JDLink™ connectivity provides machine location, utilization data, and alerts to help you maximize productivity and efficiency. To maximize uptime and lower costs, JDLink also enables **John Deere Connected Support™.** Dealers use Expert Alerts based on data from thousands of connected machines to proactively address conditions that may otherwise likely lead to downtime. Your dealer can also monitor machine health and leverage remote diagnostics and programming capability to further diagnose problems and even update machine software without a time-consuming trip to the jobsite.*

*Availability varies by region. Options not available in every country.

245

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245 P-TIER EXCAVATOR SPECIFICATIONS

While general information, pictures, and descriptions are provided, some illustrations and text may include product options and accessories NOT AVAILABLE in all regions, and in some countries products and accessories may require modifications or additions to ensure compliance with the local regulations of those countries.

Engine	**245 P-TIER**			
	Base engine for use in the U.S., U.S. Territories, and Canada			
Manufacturer and Model	Isuzu 4HK1			
Non-Road Emission Standard	EPA Final Tier 4/EU Stage IV			
Net Rated Power (ISO 9249)	119 kW (159 hp) at 2,000 rpm			
Cylinders	4			
Displacement	5.19 L (317 cu. in.)			
Off-Level Capacity	70% (35 deg.)			
Aspiration	Turbocharged and charge-air cooled			
Cooling				
Direct-drive suction-type fan				
Powertrain				
2-speed propel with automatic shift				
Maximum Travel Speed				
Slow	3.5 km/h (2.2 mph)			
Fast	5.5 km/h (3.4 mph)			
Drawbar Pull	203 kN (45,640 lb.)			
Hydraulics				
Open center, pilot operated				
Main Pumps	3 variable-displacement axial-piston pumps			
Maximum Rated Flow	212 x 2 + 189 L/m (56 x 2 + 50 gpm)			
Pilot Pump	1 gear			
Maximum Rated Flow	30 L/m (7.9 gpm)			
Pressure Setting	3999 kPa (580 psi)			
System Operating Pressure				
Circuits				
Implement (arm and bucket relief)	34 300 kPa (4,970 psi)			
Travel	35 500 kPa (5,150 psi)			
Swing	32 300 kPa (4,680 psi)			
Power Boost	38 000 kPa (5,510 psi)			
Controls	Pilot levers, short stroke, low-effort hydraulic pilot controls with shutoff lever			
Cylinders				
	Bore	*Rod Diameter*	*Stroke*	*Fully Retracted Length*
Boom (2)	120 mm (4.72 in.)	85 mm (3.35 in.)	1330 mm (52.36 in.)	1850 mm (72.83 in.)
Arm (1)	135 mm (5.31 in.)	95 mm (3.74 in.)	1475 mm (58.07 in.)	2007 mm (79.02 in.)
Bucket (1)	115 mm (4.53 in.)	80 mm (3.15 in.)	1060 mm (41.73 in.)	1590 mm (62.60 in.)
Electrical				
Number of Batteries (12 volt)	2			
Battery Capacity	651 CCA			
Alternator Rating	50 amp			
Work Lights	2 LED (1 mounted on boom, 1 on frame)			
Undercarriage				
Rollers (each side)				
Carrier	2			
Track	8			
Shoes, Triple Semi-Grousers (each side)	49			
Track				
Adjustment	Hydraulic			
Guides	Center			
Chain	Sealed and lubricated			

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Ground Pressure	245 P-TIER
Triple Semi-Grouser Shoes	
700 mm (28 in.)	45 kPa (6.53 psi)
800 mm (32 in.)	40 kPa (5.80 psi)
Swing Mechanism	
Speed	11.8 rpm
Torque	68 000 Nm (50,000 lb.-ft.)

Serviceability

Refill Capacities	
Fuel Tank	380 L (100 gal.)
Engine Coolant	28 L (29.6 qt.)
Engine Oil With Filter	23 L (24.3 qt.)
Swing Mechanism	6.2 L (6.6 qt.)

Refill Capacities *(continued)*	
Travel Device	6.8 L (7.2 qt.)
Hydraulic System	240 L (63.4 gal.)
Hydraulic Tank	130 L (34.3 gal.)
Diesel Exhaust Fluid (DEF) Tank	16 L (16.9 qt.)

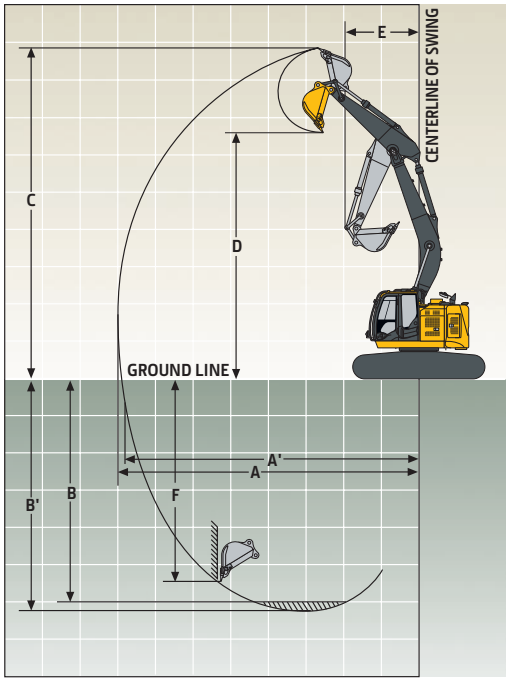
Operating Weights

With full fuel tank; 79-kg (175 lb.) operator; 1219-mm (48 in.), 1.09-m^3 (1.43 cu. yd.), 871-kg (1,921 lb.) heavy-duty bucket; 2.91-m (9 ft. 7 in.) arm; and 7280-kg (16,050 lb.) counterweight

Operating Weight With Triple Semi-Grouser Shoes	
700 mm (28 in.)	25 500 kg (56,218 lb.)
800 mm (32 in.)	25 800 kg (56,879 lb.)
Optional Components	
Undercarriage With Triple Semi-Grouser Shoes	
700 mm (28 in.)	8002 kg (17,641 lb.)
800 mm (32 in.)	8278 kg (18,250 lb.)
1-Piece Boom (with arm cylinder)	1760 kg (3,880 lb.)
2.91-m (9 ft. 7 in.) Arm With Bucket Cylinder and Linkage	918 kg (2,024 lb.)
Boom-Lift Cylinders (2), Total Weight	340 kg (750 lb.)

Operating Dimensions

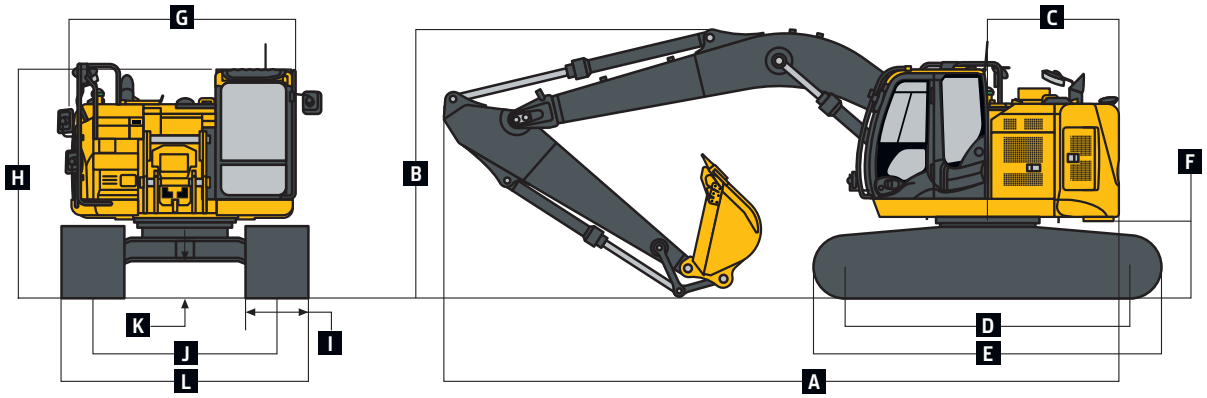
	Arm Length	*2.91 m (9 ft. 7 in.)*
	Arm Digging Force	
	SAE	110 kN (24,740 lb.)
	ISO	114 kN (25,630 lb.)
	Bucket Digging Force	
	SAE	141 kN (31,700 lb.)
	ISO	158 kN (35,520 lb.)
A	Maximum Reach	10.11 m (33 ft. 4 in.)
A'	Maximum Reach at Ground Level	9.90 m (32 ft. 6 in.)
B	Maximum Digging Depth	6.62 m (21 ft. 8 in.)
B'	Maximum Digging Depth at 2.44-m (8 ft. 0 in.) Flat Bottom	6.41 m (20 ft. 10 in.)
C	Maximum Cutting Height	11.23 m (36 ft. 8 in.)
D	Maximum Dumping Height	8.29 m (27 ft. 6 in.)
E	Minimum Swing Radius	2.38 m (7 ft. 6 in.)
F	Maximum Vertical Wall	5.81 m (19 ft. 2 in.)



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Machine Dimensions		245 P-TIER
	Arm Length	*2.91 m (9 ft. 7 in.)*
A	Overall Length	9.12 m (29 ft. 11 in.)
B	Overall Height	3.02 m (9 ft. 11 in.)
C	Rear-End Length/Swing Radius	1.68 m (5 ft. 6.1 in.)
D	Distance Between Idler/Sprocket Centerline	3.66 m (12 ft. 0.1 in.)
E	Undercarriage Length	4.46 m (14 ft. 7.6 in.)
F	Counterweight Clearance	980 mm (3 ft. 2.6 in.)
G	Upperstructure Width	2.97 m (9 ft. 8.9 in.)
H	Cab Height	3.03 m (9 ft. 11.3 in.)
I	Track Width With Triple Semi-Grouser Shoes	700 mm (28 in.) / 800 mm (32 in.)
J	Gauge Width	2.39 m (7 ft. 10.1 in.)
K	Ground Clearance	450 mm (18 in.)
L	Overall Width With Triple Semi-Grouser Shoes	
	700 mm (28 in.)	3.09 m (10 ft. 1.7 in.)
	800 mm (32 in.)	3.19 m (10 ft. 5.6 in.)



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Lift Capacities — 245 P-TIER

Boldface type indicates hydraulically limited capacity; lightface type indicates stability-limited capacities, in kg (lb.). All lift capacities are based on ISO 10567 (with power boost). Machine equipped with standard counterweight and situated on firm, level, 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.

	HORIZONTAL DISTANCE FROM CENTERLINE OF ROTATION									
	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)	
LOAD POINT HEIGHT	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With 2.91-m (9 ft. 7 in.) arm and 700-mm (28 in.) triple semi-grouser shoes, less bucket										
7.5 m (25 ft.)					**5180 (11,450)**	**5180 (11,450)**	**5310 (11,540)**	**5310 (11,540)**		
6.0 m (20 ft.)					**5720 (12,430)**	**5720 (12,430)**	**5390 (11,810)**	5390 (11,780)		
4.5 m (15 ft.)			**9960 (21,110)**	**9960 (21,110)**	**7190 (15,510)**	**7190 (15,510)**	**6030 (13,110)**	5270 (11,380)	**5450 (11,930)**	3730 (8,030)
3.0 m (10 ft.)					**9220 (19,840)**	7590 (16,400)	**6930 (15,020)**	5010 (10,810)	5820 (12,550)	3610 (7,780)
1.5 m (5 ft.)					**10 820 (23,350)**	7080 (15,290)	**7750 (16,800)**	4760 (10,270)	5690 (12,260)	3480 (7,520)
Ground Line			**4500 (10,370)**	**4500 (10,370)**	**11 350 (24,580)**	6840 (14,750)	7730 (16,650)	4590 (9,910)	5590 (12,050)	3390 (7,330)
–1.5 m (–5 ft.)	**5890 (13,180)**	**5890 (13,180)**	**8950 (20,330)**	**8950 (20,330)**	**10 970 (23,780)**	6790 (14,640)	7660 (16,510)	4530 (9,780)	5560 (12,000)	3370 (7,290)
–3.0 m (–10 ft.)	**10 310 (23,160)**	**10 310 (23,160)**	**13 510 (29,260)**	13 390 (28,710)	**9730 (21,030)**	6880 (14,830)	**7210 (15,490)**	4580 (9,900)		
–4.5 m (–15 ft.)			**9710 (20,690)**	**9710 (20,690)**	**7130 (15,070)**	**7120 (15,070)**				
With 2.91-m (9 ft. 7 in.) arm and 800-mm (32 in.) triple semi-grouser shoes, less bucket										
7.5 m (25 ft.)					**5180 (11,450)**	**5180 (11,450)**	**5310 (11,540)**	**5310 (11,540)**		
6.0 m (20 ft.)					**5720 (12,430)**	**5720 (12,430)**	**5390 (11,810)**	**5390 (11,810)**		
4.5 m (15 ft.)			**9960 (21,110)**	**9960 (21,110)**	**7190 (15,510)**	**7190 (15,510)**	**6030 (13,110)**	5330 (11,500)	**5450 (11,930)**	3770 (8,120)
3.0 m (10 ft.)					**9220 (19,840)**	7670 (16,570)	**6930 (15,020)**	5060 (10,940)	5840 (12,690)	3650 (7,870)
1.5 m (5 ft.)					**10 820 (23,350)**	7160 (15,460)	**7750 (16,800)**	4810 (10,390)	5750 (12,400)	3530 (7,610)
Ground Line			**4500 (10,370)**	**4500 (10,370)**	**11 350 (24,580)**	6920 (14,930)	7820 (16,850)	4650 (10,030)	5650 (12,190)	3430 (7,420)
–1.5 m (–5 ft.)	**5890 (13,180)**	**5890 (13,180)**	**8950 (20,330)**	**8950 (20,330)**	**10 970 (23,780)**	6880 (14,820)	7750 (16,700)	4590 (9,900)	5630 (12,150)	3410 (7,380)
–3.0 m (–10 ft.)	**10 310 (23,160)**	**10 310 (23,160)**	**13 510 (29,260)**	13 510 (29,040)	**9730 (21,030)**	6960 (15,010)	**7210 (15,490)**	4630 (10,020)		
–4.5 m (–15 ft.)			**9710 (20,690)**	**9710 (20,690)**	**7130 (15,070)**	**7130 (15,070)**				

245 P-TIER

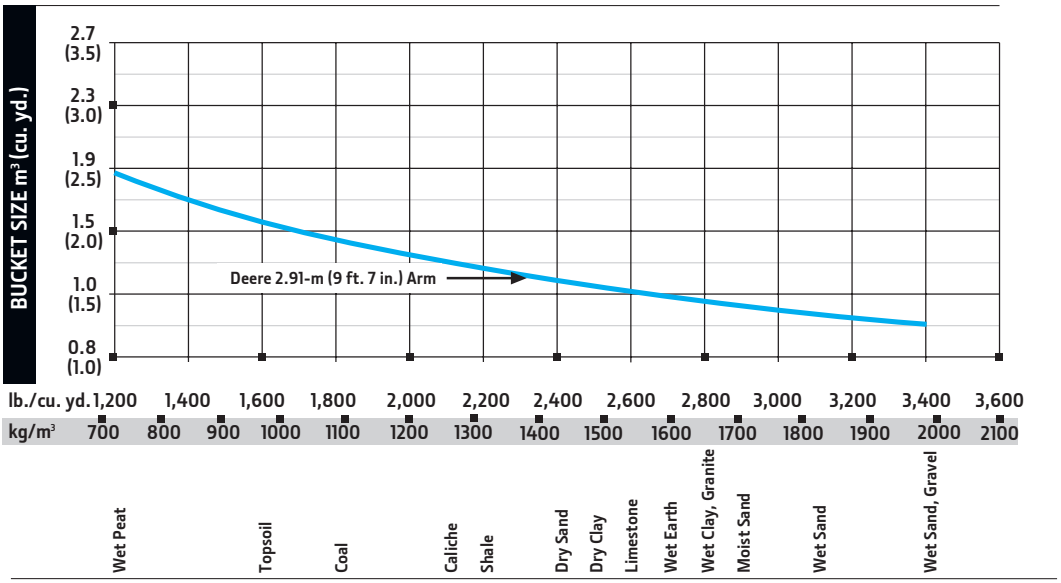
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Buckets — 245 P-TIER

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Buckets are equipped with John Deere TK-Series Bucket Teeth standard. Replaceable cutting edges and a variety of teeth are available through John Deere Parts. Optional side cutters add 150 mm (6 in.) to bucket widths. Capacities are SAE heaped ratings.

Bucket Type	Bucket Width		Bucket Capacity		Bucket Weight	
	mm	in.	m^3	cu. yd.	kg	lb.
Heavy Duty	610	24	0.39	0.51	443	975
	762	30	0.54	0.71	498	1,097
	914	36	0.70	0.91	562	1,238
	1067	42	0.85	1.11	602	1,327
	1219	48	1.00	1.31	660	1,453

Bucket Selection Guide*



*Contact your John Deere dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Does not include optional equipment such as thumbs or couplers. Larger buckets may be possible when using light materials, for flat and level operations, less compacted materials, and volume loading applications such as mass-excavation applications in ideal conditions. Smaller buckets are recommended for adverse conditions such as off-level applications, rocks, and uneven surfaces. Bucket capacity indicated is SAE heaped.

Additional equipment

Key: ● Standard ▲ Optional or special
See your John Deere dealer for further information.

245 P	Engine
●	Auto-idle system
●	Automatic belt-tension device
●	Batteries (2 – 12 volt)
●	Coolant recovery tank
●	Dual-element dry-type air filter
●	Electronic engine control
●	Enclosed fan guard (conforms to SAE J1308)
●	Engine coolant to –37 deg. C (–34 deg. F)
●	Fuel filter with water separator
●	Full-flow oil filter
●	Turbocharger with charge-air cooler
●	500-hour engine-oil-change interval
●	70% (35 deg.) off-level capability
●	Programmable auto shutdown
▲	Severe-duty fuel filter
	Hydraulic System
●	Reduced-drift valve for boom down, arm in
●	Auxiliary hydraulic valve section
●	Spring-applied, hydraulically released automatic swing brake
●	Auxiliary hydraulic-flow adjustments through monitor
●	Auto power lift
●	5,000-hour hydraulic-oil-change interval
●	Auxiliary hydraulic lines with hand-controlled proportional control
▲	Load-lowering control device
▲	Single-pedal propel control
▲	Control pattern-change valve
	Undercarriage
●	Planetary drive with axial piston motors
●	Propel motor shields
●	Spring-applied, hydraulically released automatic propel brake
●	Track guides, front idler and center
●	2-speed propel with automatic shift
●	Upper carrier rollers (2)
●	Sealed and lubricated track chain
▲	Triple semi-grouser shoes, 700 mm (28 in.)
▲	Triple semi-grouser shoes, 800 mm (32 in.)

245 P	Upperstructure
●	Right-hand, left-hand, and counterweight mirrors
●	Vandal locks with ignition key: Cab door / Service doors / Toolbox
●	Debris screening
●	Remote-mounted engine oil and fuel filters
	Front Attachments
●	Centralized lubrication system
●	Dirt seals on all bucket pins
●	Oil-impregnated bushings
●	Reinforced resin thrust plates
●	Tungsten carbide thermal coating on arm-to-bucket joint
●	Arm, 2.91 m (9 ft. 7 in.)
▲	Attachment quick-couplers
▲	Buckets: Heavy duty / Heavy-duty high capacity / Side cutters and teeth
▲	Material clamps/Hydraulic thumb
	Operator's Station
●	Meets ISO 12117-2 for ROPS
●	Adjustable independent-control positions (levers-to-seat, seat-to-pedals)
●	AM/FM radio
●	Auto climate control/air conditioner/ heater/pressurizer
●	Built-in Operator's Manual storage compartment and manual
●	Cell-phone power outlet, 12 volt, 60 watt, 5 amp
●	Coat hook
●	Deluxe air-suspension heated cloth seat with 100-mm (4 in.) adjustable armrests
●	Floor mat
●	Front windshield wiper with intermittent speeds
●	Gauges (illuminated): Diesel Exhaust Fluid (DEF) / Engine coolant / Fuel
●	Horn, electric
●	Hour meter, electric
●	Hydraulic shutoff lever, all controls
●	Hydraulic warm-up control
●	Interior light
●	Large cup holder
●	Machine Information Center (MIC)

245 P	Operator's Station *(continued)*
●	Mode selectors (illuminated): Power modes (3) / Travel modes (2 with automatic shift) / Work mode (1)
●	Multifunction, color LCD monitor with: Diagnostic capability / Multiple-language capabilities / Maintenance tracking / Clock / System monitoring with alarm features: Auto-idle indicator, engine air cleaner restriction indicator light, engine check, engine coolant temperature indicator light with audible alarm, engine oil pressure indicator light with audible alarm, low-alternator charge indicator light, low-fuel indicator light, low DEF indication with audible alarm, fault code alert indicator, fuel-rate display, wiper-mode indicator, work-lights-on indicator, and work-mode indicator
●	Motion alarm with cancel switch (conforms to SAE J994)
●	Power-boost switch on right console lever
●	SAE 2-lever control pattern
●	Seat belt, 76 mm (3 in.), non-retractable
●	Tinted glass
●	Transparent tinted overhead hatch
●	Hot/cold beverage compartment
▲	Hydraulic oil filter restriction indicator light
▲	Protection screens for cab front, rear, and side
▲	Window vandal-protection covers
	Electrical
●	50-amp alternator
●	Blade-type multi-fused circuits
●	Positive-terminal battery covers
●	JDLink™ wireless communication system (available in specific countries; see your dealer for details)
▲	Right rear left 270-deg. camera system with additional LED surround lighting
●	Rearview camera
	Lights
●	Work lights: LED / 1 mounted on boom / 1 mounted on frame
▲	2 lights mounted on cab / 1 mounted on right side of boom

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Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at test conditions specified per ISO 9249. No derating is required up to 3050-m (10,000 ft.) altitude. 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 1219-mm (48 in.), 1.09-m^3 (1.43 cu. yd.), 871-kg (1,921 lb.) heavy-duty bucket; 2.91-m (9 ft. 7 in.) arm; 7280-kg (16,050 lb.) counterweight; 800-mm (32 in.) triple semi-grouser shoes; full fuel tank; and 79-kg (175 lb.) operator.



ME245PAJ (22-11)

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