

Link-Belt
EXCAVATORS • FORESTRY
DEMOLITION • MATERIAL HANDLING

235X₃

SPECIFICATIONS

SAE Net Horsepower: 160 HP (119 kW)

Operating Weight: 56,879 lbs. (25,800 kg)

Digging Depth: 21 ft. 10 in. (6.65 m)



Cab

The Link-Belt X3 cab is the strongest and roomiest LBX has ever offered. The X3 cab is ROPS and FOPS Level 1 certified and is designed to be strong and safe without sacrificing operator comfort. These improvements leave plenty of room to rest work boots on the two foot rests on either side of the travel pedals.

Roomy

- 8% larger than X2 series cab
- 6% more floor space

Strong

- ROPS and FOPS Level 1 certified

Comfortable

- Fully-adjustable KAB seat in the 145 X3 and 235 X3, forward/backward, up/down
- Seat slides independently of console
- Adjustable arm rest angles, lumbar support, suspension

Optimum Visibility

- Sunroof with sunshade rated FOPS level 1
- Additional mirrors
- Standard rearview camera
- Wiper blade stores off front glass

Ergonomic Joysticks

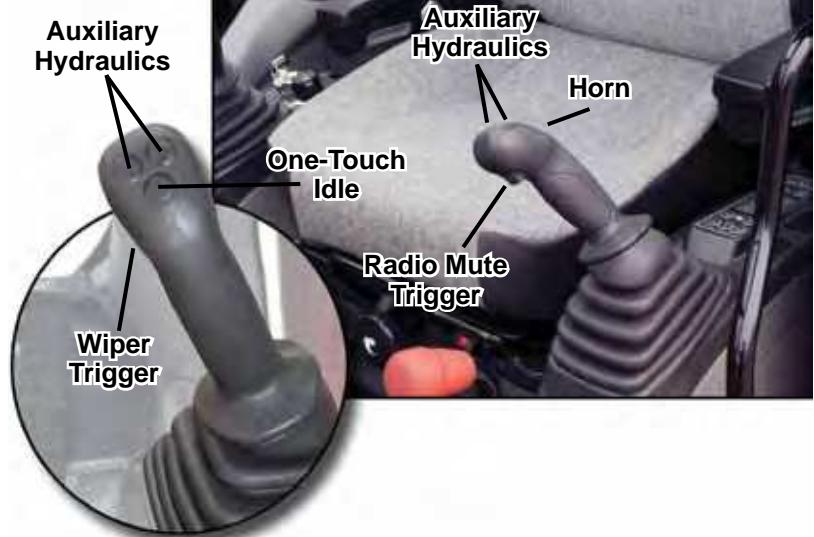
- Low-effort
- Pre-wired for auxiliary hydraulics
- Function buttons for wiper swipe, horn, radio mute and one-touch idle
- Large, easy-to-push triggers

Quiet

- Pressurized cab
- 8% stronger climate control system with 8 vents
- Auxiliary sound jack to enjoy music or podcasts

Organized

- Logically located switches and controls
- Accessible 12V outlet for cell phone charging
- Cup holder
- Handy phone storage areas
- Removable ashtray; empty space can be used as an additional cup holder



High-Definition 7" LED Monitor

The Link-Belt X3's from LBX are equipped with an all new High-Definition LED monitor. The full-color 7-inch monitor is one of the largest in the industry and rivals the resolution and quality found in luxury automobiles.

The X3's user-friendly monitor panel includes an engine-idle shutdown option that safely shuts off the engine after 3 minutes of idling, conserving fuel. Another idle feature accessible from the monitor panel is the auto-idle feature that, when selected, takes the engine speed down to an idle level, conserving fuel while waiting for that next truck to show up.

In-Cab Control

- Select and set up attachments
- Track or monitor up to 13 service interval reminders
- Engine idle shutdown, which, when selected, safely shuts off the engine after 3 minutes of idling to conserve fuel
- Adjust hydraulic flow
- 18 languages available



145 X3 and 235 X3 Models

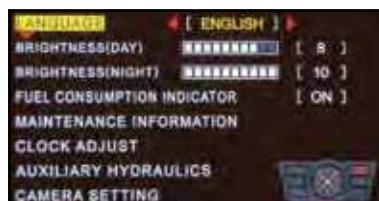
The 145 X3 and 235 X3 models use a "passive" regeneration process and the monitor clearly lets the operator know what is going on and if they need to do anything with the machine. The on-screen DPD gauge shows the level of particulate matter that the DPF is capturing and will clean it out every 8 hours by way of an Auto Regeneration. During the Auto Regeneration process, the operator does NOT have to do anything with the machine other than keep working. During a parked, or Manual Regeneration, the monitor will give the operator the appropriate instructions on what to do with the machine, making it as simple as possible.

Monitor

- Fuel consumption gauge
- Full color display of standard rear view camera AND optional side-view camera on the same screen
- Monitor engine coolant and hydraulic oil temperatures
- Displays fuel level, travel mode, work mode and attachment mode
- System/Machine warning messages
- Work tool settings

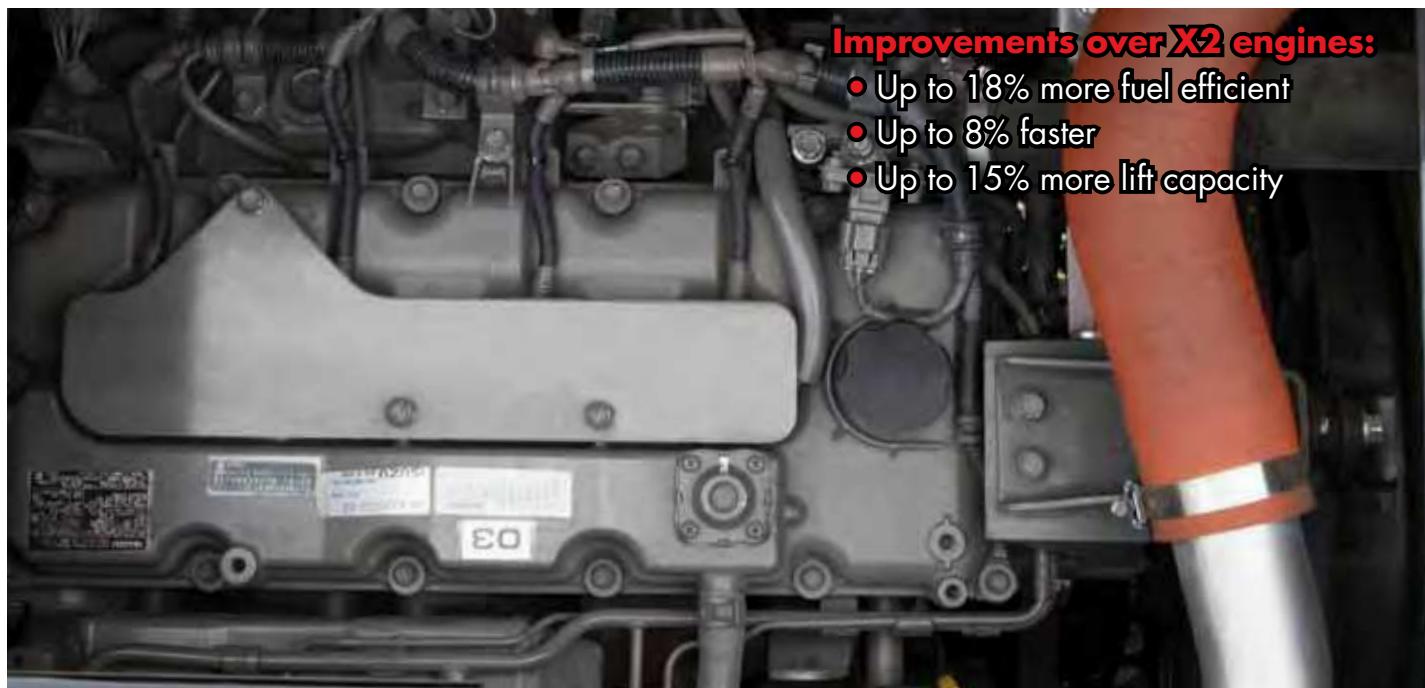


A standard rear-view camera displays a panoramic view of the worksite from the rear of the machine, an optional side-view camera is available.



From the Computer Menu, you can change the monitor language, program service reminders and change auxiliary settings for flow to name a few.

Engine



Improvements over X2 engines:

- Up to 18% more fuel efficient
- Up to 8% faster
- Up to 15% more lift capacity

The fuel-efficient, powerful, productive, quiet and long-lasting Isuzu engine LBX used in the Link-Belt X3 series meets the EPA's Interim Tier 4 (Tier 4a) requirements by way of cooled exhaust gas recirculation (EGR) technology and a diesel particulate diffuser system (DPD) in the 145 X3 and 235 X3. The DPD consists of a diesel oxidation catalyst (DOC) and a diesel particulate filter (DPF) for "passive regeneration" of exhaust emissions. The 75 X3 and 80 X3 are Final Tier 4-certified and are not equipped with a DPF; therefore, they do not require any regeneration.

A new variable geometry turbocharger (VGT), available on the 145 X3 and 235 X3, helps optimize the combustion process and ensures consistent boost pressure during low engine rpm's. This maintains efficient machine performance and helps eliminate harmful nitrous oxides (NOx) from forming.

The X3 has three engine work modes to give the operator full control of the machine for the job at hand:

- **Speed Priority (SP mode)** is the fastest and most productive mode giving the operator peak machine performance to get the job done quickly.
- **Heavy (H mode)** is a perfect combination of fuel efficiency and productivity. It really is the best of both worlds!
- **Applied Power (A mode)** gives the operator 13 different engine rpm settings to choose from to easily fine tune the machine to the specific job at hand. This mode is perfect for heavy lifting, fine grading or leveling work, and pipeline contractors use it to safely set pipe down into the trench.



Intelligent Design

- Quiet
- Long-lasting
- One-touch idle and auto idle functions conserve fuel
- Idle start protects a cold engine from over-revving
- Auto engine warm up feature gradually increases engine speed until normal operating temperature is achieved

Hydraulics

The Link-Belt X3's from LBX are equipped with two Kawasaki variable-displacement axial-piston pumps and one Kawasaki gear pump installed in-line with the engine. This is the most efficient hydraulic pump layout – keeping engine rpm's low while producing plenty of hydraulic muscle.

The X3 uses an open center hydraulic system which refers to the open passage in the control valve that allows the hydraulic oil to return to tank when the control valve is centered. This design gives the machine a much smoother feeling when operating and also eliminates excess pressure throughout the system, which, in turn, helps to conserve fuel.

Powerful & Productive

- Available on the 145 X3 and 235 X3, Auto Power Boost gives 9% more hydraulic pressure (power) for 8 seconds
- More speed through larger hydraulic lines
- Improved oil regeneration circuits

Safe

- Boom and arm holding valves
- Standard hydraulic control pattern change valve to move between ISO and SAE
- Optional "Free Swing" auto-centers the machine over the load and takes out the pendulum effect of large, long loads

Long-lasting

- Continuous filtration of 5000-hour hydraulic oil through a 6 micron, full-flow return filter
- Less wear due to reduced back pressure



Serviceability

Easy to maintain

- Ground level access to:
 - ✓ Batteries
 - ✓ Dual fuel filters with water separators
 - ✓ Engine oil filter
 - ✓ Dual element air filter
 - ✓ Cab fresh air filter
- Green drain plug and hose
- Easy-open engine hood
- Easy-access in-cab fuse box accessible while seated in cab seat
- Side-by-side oil cooler/radiator design is easy to clean
- Quick and easy access to grease all attachment pivot points
- Grease cylinder track adjusters make adjusting track tension a breeze



Maintenance reminders

- In-cab monitor will track 13 different serviceable items:
 - ✓ 5 reminders for engine items
 - ✓ 5 for hydraulic items
 - ✓ 3 other reminders

Simple

- Flexible and heat-resistant color-coded wiring harnesses
- External fuel site gauge can be viewed from ground-level to see fuel levels
- Lube and maintenance charts posted inside toolbox for readability and protection from the elements

Performance

Improvements and Optimizations

- 15% increased lift capacity over previous series
- 18% better fuel efficiency than previous series
- 8% faster cycle times
- Time will be saved in switching out the attachment tools via the in-cab monitor

Innovation at Work



Durability

LBX built the Link-Belt X3 series to last, and they come with one of the best standard warranties in the industry. We back our machines with a 1-year / 1,800 hour full machine warranty, a 2-year / 3,000 hour engine warranty, and a 3-year / 10,000 hour XtraStructure warranty that even covers the turntable bearing and tub.



EMS (Extended Maintenance System) chrome pins and grease impregnated brass bushings with graphite inserts reduce wear-and-tear and can be found throughout the attachment. This design makes it possible to extend lube intervals to 6 months or 1,000 hours at all pivot points excluding the bucket which is monthly or 250 hours, whichever comes first.

Strong

- All booms and arms are ultrasound tested at the factory
- X-Pattern carbody made with high tensile strength steel
- Turntable bearing tub extends through the carbody and is welded on top and bottom
- Factory standard belly pan guard
- D-channel sideframes provide excellent impact resistance
- Cab is FOPS level 1 and ROPS certified
- Thicker steel plating on the attachment
- Standard HD linkage on 350 X3 and 470 X3 and on all Link-Belt X3 excavators ordered with factory hydraulic packages



X-Pattern carbody



Turntable bearing tub



D-channel sideframes



Specifications

Engine

Isuzu AM-4HK1X Tier 4A turbocharged diesel engine with electronic control (ECM) and high pressure common-rail fuel injection, 4-cylinder, Water-cooled, Cooled Exhaust Gas Recirculation (CEGR), Intercooler, Variable-Geometry Turbocharger (VGT), Diesel Particulate Diffuser (DPD) with Diesel Oxidation Catalyst (DOC) and Diesel Particulate Filter (DPF) for "passive regeneration" of exhaust emissions, Electronic fuel pump and priming, Fuel cooler, Auto-idle start, Auto warm-up, EPF engine protection, Dual-stage fuel filtration, In-cab fuel filter restriction indicator, Remote oil filter, Green plug oil drain, Double element air filter.

SAE net horsepower... 160 hp (119 kW) @ 1,800 rpm
Displacement..... 317 cu in (5.2 L)
Maximum Torque....458 lbf-ft (621 Nm) @ 1500 rpm
Starter 24V-5.0kW
Alternator..... 50 amp
Battery..... (2) 12-volt 92 amp hours

Cab and Controls

ROPS certified cab with climate control A/C and heat with defroster, Control panel with LED Hi-Definition color monitor, Rearview camera display, Fuel-efficiency gauge, DPF regeneration gauge, Low-effort joysticks pre-wired for auxiliary hydraulics, Control pattern changer, Safety glass windows, Sunroof with sunshade, Shockless cab suspension with four fluid mountings, KAB® reclining suspension seat, AM/FM sound system with MP3 auxiliary input jack, Digital clock, Dome light, Seat belt, Coat hook, Cup holder, Storage compartments, Floor mat, Footrests, Ashtray, 24-volt cigarette lighter, 12-volt outlet, Travel alarm, Handrails, Mirrors, Side-entry cab filter, Spare parts kit.

Four selectable working modes, Anti-theft password protection system, On-board self-diagnostic system with memory and service interval reminders, Auto-idling system, One-touch decelerator, Auto-idle engine shutdown, Auto-power boost, Neutral safety start, Gate-lock safety shutoff.

A/C Rating 16,720 BTU/h
Heater Rating 18,425 BTU/h
Sound Level - Cab Interior..... 73.0 dB(A)
Sound Level - Exterior..... 99.0 dB(A)

Swing

Planetary reduction powered by axial-piston motor, Internal ring gear with grease cavity for swing pinion, Swing bearing is single-row, shear type ball bearing, Mechanical disc swing brake, Auto-power swing.

Swing Speed..... 11.8 rpm
Tail Swing 5' 10" (1.79 m)
Swing Torque 47,204 lbf-ft (64.0 kNm)

Hydraulic System

Open-center system, Two variable-displacement axial-piston pumps and one gear pump for pilot controls, Main control valve with one 4-spool section and one 5-spool section with auxiliary spool: stackable, Auxiliary Control System, Oil cooler, Auto-power boost, Boom and arm frame, Automatic downshift for high torque to holding valves, 6 micron return filter, Firewall.

Hydraulic Pumps

Pump Output 2 x 55.7 gpm (211 L/min)
Pilot Pump Maximum Flow ... 4.8 gpm (18 L/min)

Relief Valve Settings

Boom/Arm/Bucket..... 4,970 psi (34.3 MPa)
in Power Boost 5,340 psi (36.8 MPa)
Swing Circuit..... 4,260 psi (29.4 MPa)
Travel Circuit 4,970 psi (34.3 MPa)

Hydraulic Cylinders

number of cylinders - bore x rod x stroke
Boom 2 - 4.7" x 3.3" x 53.9"
(120 mm x 85 mm x 1,370 mm)
Arm 1 - 5.5" x 3.9" x 57.5"
(140 mm x 100 mm x 1,460 mm)
Bucket 4.7" x 3.3" x 39.8"
(120 mm x 85 mm x 1,010 mm)
Blade 2 - 5.1" x 3.1" x 10.2"
(130 mm x 80 mm x 260 mm)

Undercarriage

X Pattern carbody with LC long undercarriage or regular undercarriage with dozer blade, 8' 6" (2.59 m) track gauge, Sealed and struttetd track chain with track guide, Sealed rollers and idlers, Two-speed independent hydrostatic travel with compact planetary final drive, Disc type brakes, Adjustable track tension, Carbody belly pan.

Carrier Rollers 2 per Side

Track Rollers

LC no blade 8 per Side

Regular undercarriage w/ blade ... 7 per Side

Track Link Pitch 7.48" (190 mm)

Shoes

LC no blade 49 per Side

Regular undercarriage w/ blade ... 46 per Side

Shoe Width

LC no blade 31.5" (800 mm)

Regular undercarriage w/ blade ... 23.6" (600 mm)

Ground Pressure

LC no blade 800 mm shoe 5.8 psi (0.4 Bar)

Reg. w/ blade 600 mm shoe ... 8.4 psi (0.58 Bar)

Two-speed independent hydrostatic travel with compact axial-piston motors, Hydraulic motor powered output shaft coupled to a planetary reduction drive and track sprocket, All hydraulic components mounted within the width of side Oil cooler, Auto-power boost, Boom and arm frame, Automatic downshift for high torque to overcome obstacles, Spring-applied hydraulic release parking brake built into each motor, Travel motors equipped with counterbalance valve to prevent over-speeding down an incline, Single-pedal straight line travel.

Travel Speeds 2.0 - 3.1 mph (3.2 - 5.0 km/h)
Drawbar Pull 45,187 lbf (201 kN)
Gradeability..... 70% (35°)

Attachment

Boom 18' 8" (5.70 m)

Available Arms

- 9' 8" (2.94 m) 23,160 lbf (103 kN)
with Auto Power Boost ... 24,730 lbf (110 kN)
- 7' 10" (2.40 m) 27,650 lbf (123 kN)
with Auto Power Boost ... 29,670 lbf (132 kN)

Bucket Digging Force..... 31,920 lbf (142 kN)
with Auto Power Boost ... 34,170 lbf (152 kN)

Lubricant and Coolant Capacity

Fuel Tank..... 84.5 Gallons (320.0 Liters)
Hydraulic System...66.5 Gallons (252.0 Liters)
Hydraulic Tank..... 30.1 Gallons (114.0 Liters)
Final Drive (per side)... 1.3 Gallons (5.0 Liters)
Swing Drive 1.3 Gallons (5.0 Liters)
Engine Oil..... 6.1 Gallons (23.1 Liters)
Coolant System..... 8.1 Gallons (31.0 Liters)

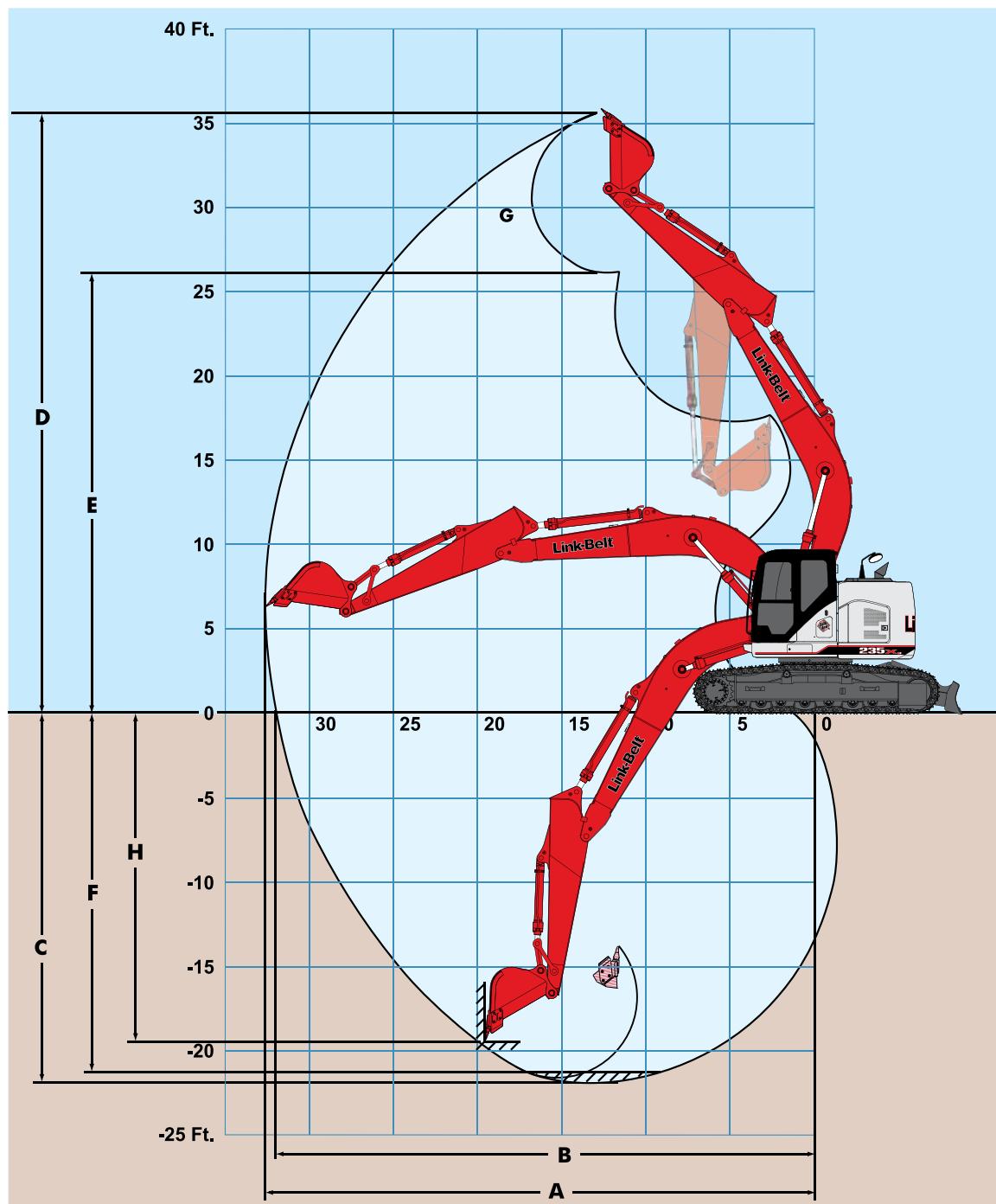
Operating Weight

Working weight with LC, no blade,
31.5" (800 mm) shoes, 18' 8" (5.70 m) boom,
9' 8" (2.94 m) arm, 1,440 lb. (651 kg) bucket,
16,975 lbs (7,700 kg) counterweight
..... 55,997 lbs. (25,400 kg)

Working weight with regular undercarriage,
dozer blade, 23.6" (600 mm) shoes,
18' 8" (5.70 m) boom, 9' 8" (2.94 m) arm,
1,440 lb. (651 kg) bucket 16,975 lbs (7,700 kg)
counterweight..... 56,879 lbs. (25,800 kg)

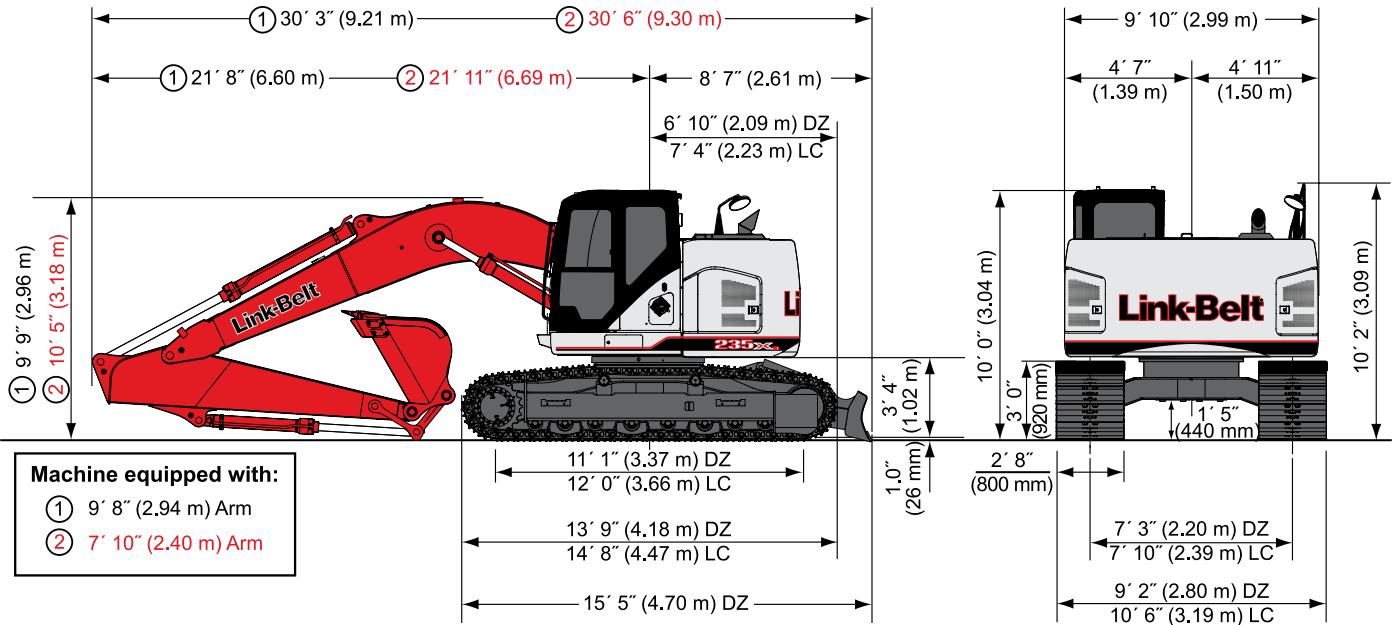
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Working Ranges

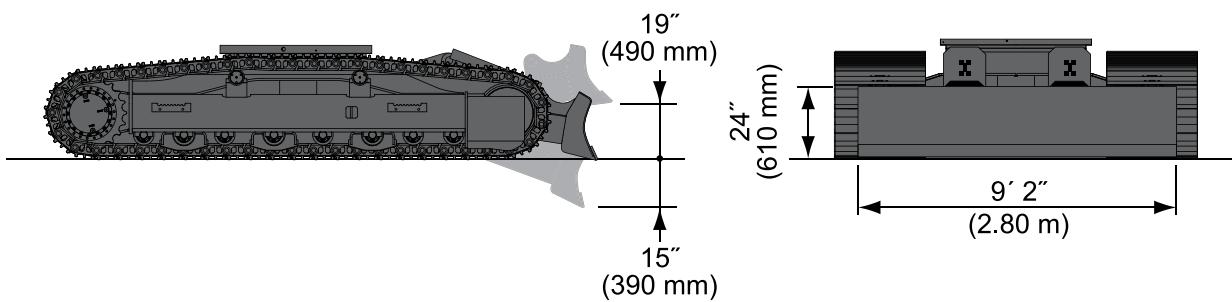


Machine Equipped with 18' 8" (5.70 m) Boom	Arm 9' 8" (2.94 m)	Arm 7' 10" (2.40 m)
A. Maximum reach	32' 4" (9.85 m)	30' 9" (9.37 m)
B. Maximum reach @ ground level	31' 9" (9.67 m)	30' 1" (9.18 m)
C. Maximum dig depth	21' 10" (6.65 m)	20' 1" (6.11 m)
D. Maximum dig height	35' 8" (10.86 m)	34' 6" (10.52 m)
E. Maximum dump height	26' 2" (7.97 m)	25' 0" (7.63 m)
F. Digging depth 8' (2.44 m) level bottom	21' 3" (6.47 m)	19' 5" (5.91 m)
G. Bucket rotation	177°	177°
H. Maximum vertical wall depth	19' 5" (5.92 m)	18' 0" (5.48 m)

Travel Dimensions



Blade Dimensions



Notes: Excavator lifting capacities

1. Lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities.
2. Lifting capacities are based on machine standing on firm, uniform supporting surface. User must make allowances for job conditions such as soft or uneven ground.
3. Lifting capacities shown do not exceed 75% of minimum tipping loads or 87% of hydraulic capacities. Capacities marked with an asterisk (*) are limited by hydraulic capacities.
4. Least stable position is over the side.
5. Operator should be fully acquainted with the Operator's Manual & Operating Safety Booklet, furnished by LBX before operating the machine.
6. Capacities apply only to the machine as originally manufactured and normally equipped by LBX Company, LLC.
7. Lift capacity ratings are based on ISO 10567, "Earthmoving Machinery - Hydraulic Excavators - Lift Capacity."

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Lifting Capacities - ISO Ratings

Radius of Load - Regular Undercarriage with Blade Down														
	5' 0" (1.52 m)		10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		30' 0" (9.14 m)		Cap at Max. Reach	
	End	Side	End	Side										
+30' 0" lbs (9.14 m) kg													5,650*	5,650*
+25' 0" lbs (7.62 m) kg							8,850* 4 020*		8,850* 4 020*				4,950*	4,950*
+20' 0" lbs (6.10 m) kg							9,850* 4 490*		9,850* 4 490*		8,950* 4 080*		8,200	3 820
+15' 0" lbs (4.57 m) kg			10,950* 5 020*		10,950* 5 020*		12,300* 5 700*		12,300* 5 700*		10,950* 5 060*		10,050* 4 670*	8,000 3 720
+10' 0" lbs (3.05 m) kg			23,800* 11 030*		23,800* 11 030*		17,100* 7 950*		16,900 7 840		13,200* 6 100*		11,000 5 100	11,100* 5 110*
+5' 0" lbs (1.52 m) kg			21,000* 8 910*		21,000* 8 910*		20,850* 9 670*		16,050 7 450		15,150* 7 010*		10,400 4 840	12,200* 5 630*
Ground lbs Line kg			19,400* 8 530*		19,400* 8 530*		22,750* 10 510*		15,250 7 070		16,400* 7 580*		9,950 4 630	12,850* 5 940*
-5' 0" lbs (1.52 m) kg	16,250* 7 350*		16,250* 7 350*		24,800* 10 960*		24,800* 10 960*		22,850* 10 550*		14,950 6 950		16,600* 7 680*	9,750 4 520
-10' 0" lbs (3.05 m) kg	22,350* 10 000*		22,350* 10 000*		32,050* 14 760*		29,450 13 710		21,850* 10 090*		15,100 7 010		16,000* 7 400*	9,850 4 560
-15' 0" lbs (4.57 m) kg	32,300* 14 330*		32,300* 14 330*		26,700* 12 410*		26,700* 12 410*		18,650* 8 690*		15,550 7 210		13,050* 6 180*	10,250 4 750
													5,300* 3 020*	5,300* 2 680
													4,650* 2 120*	4,650* 2 120*
													5,600* 2 190*	5,600* 2 190*
													4,850* 3 770*	4,850* 3 090
													8,400* 3 770*	6,850* 3 090
													11,050* 5 010*	9,150* 4 080
													5,700* 2 580*	5,300* 2 400

Radius of Load - Regular Undercarriage with Blade Up														
	5' 0" (1.52 m)		10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		30' 0" (9.14 m)		Cap at Max. Reach	
	End	Side	End	Side										
+30' 0" lbs (9.14 m) kg													5,650*	5,650*
+25' 0" lbs (7.62 m) kg							8,850* 4 020*		8,850* 4 020*				4,950*	4,950*
+20' 0" lbs (6.10 m) kg							9,850* 4 490*		9,850* 4 490*		8,950* 4 080*		7,850	3 660
+15' 0" lbs (4.57 m) kg			10,950* 5 020*		10,950* 5 020*		12,300* 5 700*		12,300* 5 700*		10,950* 5 060*		10,050* 4 670*	7,650
+10' 0" lbs (3.05 m) kg	23,800* 11 030*		23,800* 11 030*		17,100* 7 950*		16,250 7 540		13,200* 6 100*		10,500 4 880		11,000 5 100*	7,350
+5' 0" lbs (1.52 m) kg	21,000* 8 910*		21,000* 8 910*		20,850* 9 670*		15,300 7 090		15,100* 7 010*		9,950 4 620		10,750 4 990	7,050
Ground lbs Line kg			19,400* 8 530*		19,400* 8 530*		22,750* 10 510*		14,450 6 720		14,750 6 860		9,500 4 410	10,450 4 860
-5' 0" lbs (1.52 m) kg	16,250* 7 350*		16,250* 7 350*		24,800* 10 960*		24,800* 10 960*		22,850* 10 550*		14,200 6 600		14,500 6 740	9,250
-10' 0" lbs (3.05 m) kg	22,350* 10 000*		22,350* 10 000*		32,050* 14 760*		27,750 12 940		21,850* 10 090*		14,350 6 660		14,550 6 770	9,350
-15' 0" lbs (4.57 m) kg	32,300* 14 330*		32,300* 14 330*		26,700* 12 410*		26,700* 12 410*		18,650* 8 690*		14,800 6 860		13,050* 6 180*	9,800
													5,300* 3 020*	5,300* 2 680
													4,650* 2 120*	4,650* 2 120*
													4,950* 2 190*	4,950* 2 190*
													8,400* 3 770*	6,850* 3 090
													11,050* 5 010*	9,150* 4 080
													5,700* 2 580*	5,300* 2 280

Lifting Capacities - ISO Ratings

Radius of Load - Regular Undercarriage with Blade Down													
		5' 0" (1.52 m)		10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		Cap at Max. Reach	
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side
+30' 0"	Ibs					10,000*	10,000*					8,500*	8,500*
(9.14 m)	kg					3 510*	3 510*					3 770*	3 770*
+25' 0"	Ibs					8,050*	8,050*	9,800*	9,800*			7,300*	7,300*
(7.62 m)	kg					3 670*	3 670*	4 420*	4 420*			3 290*	3 290*
+20' 0"	Ibs					11,300*	11,300*	10,750*	10,750*	9,800*	9,800*	7,950	6,900*
(6.10 m)	kg					5 190*	5 190*	4 970*	4 970*	4 480*	3 710	3 130*	3 130*
+15' 0"	Ibs			18,000*	18,000*	14,350*	14,350*	11,900*	11,300	10,750*	7,750	6,850*	6,100
(4.57 m)	kg			8 430*	8 430*	6 670*	6 670*	5 510*	5 230	4 970*	3 620	3 110*	2 750
+10' 0"	Ibs			26,800*	26,800*	18,500*	16,800	13,900*	10,750	11,650*	7,500	7,050*	5,600
(3.05 m)	kg			10 110*	10 110*	8 550*	7 780	6 430*	4 980	5 350*	3 490	3 200*	2 540
+5' 0"	Ibs					21,650*	15,650	15,650*	10,200	12,500*	7,250	7,500*	5,500
(1.52 m)	kg					9 960*	7 260	7 230*	4 740	5 760*	3 360	3 400*	2 490
Ground Line	Ibs			17,500*	17,500*	22,850*	15,000	16,550*	9,800	12,850*	7,000	8,250*	5,700
	kg			7 710*	7 710*	10 560*	6 970	7 640*	4 560	5 950*	3 260	3 750*	2 590
-5' 0"	Ibs	18,100*	18,100*	25,650*	25,650*	22,600*	14,900	16,500*	9,700	12,600*	7,000	9,700*	6,350
(1.52 m)	kg	8 050*	8 050*	11 320*	11 320*	10 430*	6 930	7 620*	4 500	5 840*	3 250	4 370*	2 870
-10' 0"	Ibs	25,300*	25,300*	29,950*	29,200	20,950*	15,150	15,300*	9,900			11,350*	7,700
(3.05 m)	kg	11 290*	11 290*	13 830*	13 590*	9 680*	7 040	7 100*	4 590			5 120*	3 470
-15' 0"	Ibs			23,450*	23,450*	16,550*	15,450					11,150*	10,950
(4.57 m)	kg			10 940*	10 940*	7 780*	7 180*					5 050*	4 870

Radius of Load - Regular Undercarriage with Blade Up													
		5' 0" (1.52 m)		10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		Cap at Max. Reach	
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side
+30' 0"	Ibs					10,000*	10,000*					8,500*	8,500*
(9.14 m)	kg					3 510*	3 510*					3 770*	3 770*
+25' 0"	Ibs					8,050*	8,050*	9,800*	9,800*			7,300*	7,300*
(7.62 m)	kg					3 670*	3 670*	4 420*	4 420*			3 290*	3 290*
+20' 0"	Ibs					11,300*	11,300*	10,750*	10,750*	9,800*	9,800*	7,600	6,900*
(6.10 m)	kg					5 190*	5 190*	4 970*	4 970*	4 480*	3 540	3 130*	3 050
+15' 0"	Ibs			18,000*	18,000*	14,350*	14,350*	11,900*	10,800	10,750*	7,450	6,850*	5,800
(4.57 m)	kg			8 430*	8 430*	6 670*	6 670*	5 510*	5 010	4 970*	3 460	3 110*	2 620
+10' 0"	Ibs			26,800*	26,800*	18,500*	16,000	13,900*	10,250	10,850	7,150	7,050*	5,350
(3.05 m)	kg			10 110*	10 110*	8 550*	7 420	6 430*	4 760	5 050	3 330	3 200*	2 410
+5' 0"	Ibs					21,650*	14,900	15,000	9,750	10,550	6,900	7,500*	5,200
(1.52 m)	kg					9 960*	6 910	6 970	4 520	4 910	3 200	3 400*	2 370
Ground Line	Ibs			17,500*	17,500*	22,850*	14,250	14,600	9,350	10,350	6,700	8,250*	5,400
	kg			7 710*	7 710*	10 560*	6 610	6 780	4 340	4 810	3 100	3 750*	2 460
-5' 0"	Ibs	18,100*	18,100*	25,650*	25,650*	22,600*	14,150	14,450	9,200	10,350	6,650	9,350	6,050
(1.52 m)	kg	8 050*	8 050*	11 320*	11 320*	10 430*	6 580	6 710	4 280	4 790	3 090	4 240	2 730
-10' 0"	Ibs	25,300*	25,300*	29,950*	27,800	20,950*	14,400	14,550*	9,400			11,350*	7,350
(3.05 m)	kg	11 290*	11 290*	13 830*	12 940	9 680*	6 690	6 760	4 370			5 100	3 300
-15' 0"	Ibs			23,450*	23,450*	16,550*	14,750					11,150*	10,450
(4.57 m)	kg			10 940*	10 940*	7 780*	6 860					5 050*	4 640

235X₃

Lifting Capacities - ISO Ratings

Radius of Load - Long Undercarriage															
		5' 0" (1.52 m)		10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		30' 0" (9.14 m)		Cap at Max. Reach	
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side
+30' 0" lbs (9.14 m) kg														5,650* 2 530*	5,650* 2 530*
+25' 0" lbs (7.62 m) kg														4,950* 2 230*	4,950* 2 230*
+20' 0" lbs (6.10 m) kg														4,700* 2 130*	4,700* 2 130*
+15' 0" lbs (4.57 m) kg				10,950* 5 020*	10,950* 5 020*	12,300* 5 700*	12,300* 5 700*	10,950* 5 060*	10,950* 5 060*	10,050* 4 670*	10,050* 3 850	8,250 3 020*	5,300* 2 780	5,300* 2 120*	4,650* 2 120*
+10' 0" lbs (3.05 m) kg				23,800* 11 030*	23,800* 11 030*	17,100* 7 950*	17,100* 7 950*	13,200* 6 100*	13,200* 5 290	11,400 5 110*	11,100* 3 700	7,950 4 040*	7,950* 2 710	5,800 2 190*	4,850* 2 190*
+5' 0" lbs (1.52 m) kg				21,000* 8 910*	21,000* 8 910*	20,850* 9 670*	20,850* 7 760	16,700 7 010*	15,150* 5 020	10,800 5 620	12,100* 3 550	7,650 4 230	8,700* 2 640	5,650 2 330*	5,150* 2 330*
Ground Line lbs kg				19,400* 8 530*	19,400* 8 530*	22,750* 10 510*	22,750* 7 380	15,900 7 580*	16,400* 4 810	10,350 5 530	11,900 3 440	7,400 3 890*	6,800* 2 590	5,550 2 580*	5,700* 2 490
-5' 0" lbs (1.52 m) kg	16,250* 7 350*	16,250* 7 350*	24,800* 10 960*	24,800* 10 960*	22,850* 10 550*	22,850* 7 250	15,600 7 680*	16,550 4 700	10,150 5 470	11,750 3 380	7,300		6,650* 3 000*	6,000 2 720	
-10' 0" lbs (3.05 m) kg	22,350* 10 000*	22,350* 10 000*	32,050* 14 760*	32,050* 14 150	30,800* 10 090*	30,800* 7 310	21,850* 7 400*	15,750 4 740	16,000* 5 480	10,200 3 450	11,650* 3 450	7,450		8,400* 3 770*	7,100 3 200
-15' 0" lbs (4.57 m) kg	32,300* 14 330*	32,300* 14 330*	26,700* 12 410*	26,700* 12 410*	18,650* 8 690*	18,650* 7 500	16,150 6 180*	13,050* 4 920	10,600 4 920					11,050* 5 010*	9,500 4 240

Radius of Load- Long Undercarriage															
		5' 0" (1.52 m)		10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		Cap at Max. Reach			
		End	Side	End	Side	End	Side	End	Side	End	Side	End	Side		
+30' 0" lbs (9.14 m) kg								10,000* 3 510*	10,000* 3 510*	8,500* 3 770*	8,500* 3 770*				
+25' 0" lbs (7.62 m) kg								8,050* 3 670*	8,050* 3 670*	9,800* 4 420*	9,800* 4 420*	7,300* 3 290*	7,300* 3 290*		
+20' 0" lbs (6.10 m) kg								11,300* 5 190*	11,300* 5 190*	10,750* 4 970*	10,750* 4 970*	9,800* 4 480*	9,800* 3 840	8,200 3 130*	6,900* 3 130*
+15' 0" lbs (4.57 m) kg								18,000* 8 430*	18,000* 8 430*	14,350* 6 670*	14,350* 6 670*	11,900* 5 510*	11,600 5 380	10,750* 4 970*	8,050 3 750
+10' 0" lbs (3.05 m) kg								26,800* 10 110*	26,800* 10 110*	18,500* 8 550*	18,500* 8 040	17,350 6 430*	13,900* 5 170	11,150 5 350*	7,800 3 620
+5' 0" lbs (1.52 m) kg								21,650* 9 960*	16,300 7 570	15,650* 7 230*	10,600 4 920	11,650* 5 580	10,200 3 490	7,500 3 400*	7,500* 2 590
Ground Line lbs kg								17,500* 7 710*	17,500* 7 710*	22,850* 10 560*	15,650 7 270	16,550* 7 640*	10,200 4 740	11,800 5 480	7,300 3 390
-5' 0" lbs (1.52 m) kg	18,100* 8 050*	18,100* 8 050*	25,650* 11 320*	25,650* 11 320*	22,600* 10 430*	22,600* 7 240	15,550 7 620*	16,500 4 680	10,100 5 460	11,750 3 370	7,250 4 370*	9,700* 2 980	6,600		
-10' 0" lbs (3.05 m) kg	25,300* 11 290*	25,300* 11 290*	29,950* 13 830*	29,950* 13 830*	20,950* 9 680*	15,800 7 340	15,300* 7 100*	10,300 4 760	11,350* 5 120*	8,000 3 600					
-15' 0" lbs (4.57 m) kg								23,450* 10 940*	23,450* 10 940*	16,550* 7 780*	16,050 7 450*	11,150* 5 050*	11,150* 5 050		

Bucket Sizes

Bucket Type	SAE Heaped Capacity		Width Outside Lip		Bucket Weight		Number of Teeth	No Blade		Blade Up			
	(yd ³)	(m ³)	(in)	(mm)	(lbs)	(kg)		9' 8"	7' 10"	2.94 m	2.40 m	9' 8"	7' 10"
STDP Standard duty plate	0.65	0.50	24	610	1151	522	4	H	H	H	H		
	0.87	0.67	30	762	1265	574	4	H	H	H	H		
	1.09	0.83	36	914	1433	650	5	H	H	H	H		
	1.31	1.00	42	1067	1570	712	5	H	H	M	H		
	1.53	1.17	48	1219	1687	765	5	M	M	M	M		
	1.75	1.34	54	1372	1853	841	6	L	M	L	L		
HDP Heavy duty plate	0.64	0.49	24	610	1392	631	3	H	H	H	H		
	0.85	0.65	30	762	1592	722	4	H	H	H	H		
	1.07	0.82	36	914	1794	814	5	H	H	H	H		
	1.29	0.99	42	1067	1954	886	5	H	H	M	H		
	1.51	1.15	48	1219	2114	959	5	M	M	L	M		
	1.72	1.32	54	1372	2315	1050	6	L	M	L	L		
XDP Extreme duty plate	0.64	0.49	24	610	1549	703	3	H	H	H	H		
	0.85	0.65	30	762	1769	802	4	H	H	H	H		
	1.07	0.82	36	914	1933	877	4	H	H	H	H		
	1.29	0.99	42	1067	2152	976	5	M	H	M	H		
	1.51	1.15	48	1219	2316	1051	5	M	M	L	M		
	1.72	1.32	54	1372	2536	1150	6	L	L	L	L		
POWER HDP for use with ESCO multi-pin grabber only	0.61	0.47	24	610	1956	887	4	H	H	H	H		
	0.80	0.61	30	762	2102	953	5	H	H	H	H		
	0.99	0.76	36	914	2287	1037	5	H	H	H	H		
	1.18	0.90	42	1067	2433	1104	5	H	H	M	H		
	1.38	1.06	48	1219	2578	1169	5	M	M	L	M		
DITCH	1.08	0.83	60	1524	1470	667	0	H	H	H	H		
	1.20	0.92	66	1676	1557	706	0	H	H	H	H		
	1.32	1.01	72	1829	1648	748	0	H	H	M	H		

Approval Code For Arm/Bucket Combinations	
H.....	Heavy material (up to 3,370 lbs./yd ³)
M	Medium material (up to 2,700 lbs./yd ³)
L.....	Light material (up to 2,020 lbs./yd ³)
N/A.....	Not applicable

STDP - Standard duty plate
 HDP - Heavy duty plate
 XDP - Extreme duty plate
 POWER - HDP for use with ESCO multi-pin grabber only

Standard and Optional Equipment

CAB

12V Power Outlet	✓
24V Lighter	✓
AM/FM Sound System	✓
Anti-Theft Device	✓
Ashtray	✓
Auxiliary Switches on Control Lever	✓
Cab Exterior Light Harness	✓
Cab Filter - External	✓
Cab Handrails	✓
Cab Interior Light	✓
Cab Lights	●
Cab Iso-Mounts	✓
Clear Roof Window	✓
Climate Control A/C and Heater	✓
Cup Holder	✓
Defroster	✓
Digital Clock	✓
ECO Gauge	✓
Emergency Exit and Hammer	✓
Face Vent	✓
Floor Mat	✓
FOPS Head Guard (Level 2)	●
Front Guard (mesh)	●
Front Guard (OPG 1,2)	●
Front Window One-Touch Lock	✓

Cooling Fan

Diesel Oxidation Catalyst (DOC)	✓
Diesel Particulate Filter (DPF)	✓
Drain for Fuel Tank	✓
Dual Remote Fuel Filters with Water Separation	✓
EGR Coolers	✓
Emergency Engine Stop	✓
Engine Idle System	✓
Remote Engine Oil Drain	✓
Engine Protection Feature	✓
Fan Housing	✓
Fuel Filter Restriction Indicator	●
Fuel Management System	✓
Fuel Shut-Off Valve	✓
Fuel Usage Monitor	✓
Glow Plug Pre-Heat	✓
Idle-Start	✓
Intercooler	✓
Neutral Start	✓
One-Touch Idle	✓
Passive Emissions-Regeneration	✓
Radiator / Oil Cooler Protective Screen	✓
Regeneration Gauge on Monitor	✓
Remote Oil Filter	●
VGT Turbocharger	●

HYDRAULICS

Gate Lock Hydraulic Activation	✓
Horn	✓
Hot & Cool Box	✓
Hour Meter - Digital	✓
KAB 815 Suspension Seat	✓
KAB 855 Air-Suspension	●
LED Color Monitor	✓
Magazine Rack	✓
Maintenance Interval Reminders	✓
MP3 Auxiliary Input Jack	✓
On-Board Diagnostic System	✓
One-Piece Right Window	✓
Radio Mute Switch	✓
Rain Deflector	●
Rear View Camera	✓
Rear View Mirrors	✓
Roof Sun Shade	✓
ROPS Certified	✓
Safety Glass Windows	✓
Seat Recline	✓
Selectable Monitor Languages	✓
Side View Camera	●
Small Storage	✓
Sun Visor	●
Travel Alarm with Cancel Switch	✓
Trip Meter - Digital	✓
Vandal Cover (front window)	●
Wiper & Washer	✓
Wiper Switch on RH Joystick	✓

AUXILIARY HYDRAULIC OPTIONS

Single-Acting Auxiliary with Switch Activation	●
Single-Acting Auxiliary with Pedal Activation	●
Thumb Auxiliary with Switch Activation	●
Multi-Function Auxiliary with	●
Switch Activation	●
Secondary Auxiliary with Switch Activation	●
Combination Auxiliary with Switch Activation	●
Combination Auxiliary with in-cab pressure setting control	●

UNDERCARRIAGE

600 mm rubber shoes (23.6 in)	●
600 mm shoes (23.6 in) 3-Bar Steel	●
700 mm shoes (27.5 in) 3-Bar Steel	●
800 mm shoes (31.5 in) 3-Bar Steel	●
Steps	✓
Carbody Belly Pan (swivel guard)	✓
Center Track Guide (single)	✓
Center Track Guide (triple)	●
Regular Undercarriage with Blade	●
Long Undercarriage	●
Sealed Link Chain	✓
Strutted Track Chain	✓
X-Pattern Carbody	✓

UPPERSTRUCTURE

Belly Pans	✓
Center Cover (Over Main CV)	✓
Fuel Tank Belly Pan	✓
Hand Rail - RH Access	✓
Lifting Eyes for Counterweight	✓
Lockable Fuel Cap and Service Doors	✓
Rubber Bumper Guards	●
Turntable Tub	✓
Work Lights - Boom and Tool Box	✓

ATTACHMENT

7' 10" (2.40 m) Arm	●
9' 8" (2.94 m) Arm	●
18' 8" (5.70 m) Main Boom Section	●
Attachment Reinforcement Plate (boom+arm)	●
Auxiliary Pipe Brackets	✓
Boom Work Light	✓
Bucket Anti-Clatter Device	✓
Chrome pins	✓
Easy Maintenance System	✓
HD Bucket Link	●
Quick Couplers	●
Remote Lube Bank	✓
Teardrop pin retention keepers	✓
Thumbs	●

PARTS KIT

Bucket Anti-Clatter Device	✓
Engine Manual	✓
Engine Oil Filter	✓
Filter Wrench	✓
Fuel Filters	✓
Grease Gun	✓
Green Plug Drain Hose for Engine	✓
Oil Drain	✓
Hydraulic Return Filter	✓
Ignition Keys	✓
Pilot Circuit Hydraulic Filter	✓
Rearview Mirrors	✓
Work Light for Boom	✓

ENGINE

Air Filter - Double Element	✓
Air Filter Restriction Indicator	✓
Auto Warm-Up System	✓
Auto-Idle	✓
Auto-Idle Engine Shutdown	✓
CEGR - Cooled Exhaust Gas Recirculation	✓

Equipment Key
Standard ✓ Optional ●