

290 X₂

specifications

Operating Weight: 65,700 lbs. (29 800 kg)

SAE Net Horsepower: 207 HP (154 kW)

Bucket Range: .69 - 2.43 yd³ (.53 - 1.86 m³)

Engine

Isuzu AH-6HK1XYSS Tier 3 turbocharged diesel engine with electronic fuel control, 6-cylinder, water-cooled, EGR with cooler, air-to-air intercooler, fuel cooler, auto idle start, neutral safety start, glow plugs, auto warm-up, EPF engine protection, dual stage fuel filtration, remote oil filter, green plug oil drain.

SAE net horsepower	207 HP (154 kW) @ 1,800 rpm
Displacement	7.8 L
Maximum torque	627 lbf-ft (850 N-m) @ 1,500 rpm
Starter	24V-5.0kW
Alternator	50 amp
Battery	128 amp hours

Cab and Controls

Pressurized cab with climate control a/c and heat with defroster, LCD monitor, illuminated soft-touch switches, low-effort controls pre-wired for auxiliary hydraulics, control pattern changer, single pedal travel, sliding LEXAN® MARGARD® windows, safety glass front window with automatic locking system and vandal cover, intermittent windshield wiper with washer, emergency rear window exit, polycarbonate roof hatch with sunshade, shockless cab suspension with four fluid mountings, KAB® reclining suspension seat, sliding 4-position tilting control consoles, AM/FM radio, 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, handrail, mirrors.

Four selectable working modes, anti-theft password protection system, on-board self-diagnostic system with memory, auto-idling system, one-touch decelerator, auto power boost, gate lock safety shutoff.

A/C output	18,100 BTU/hr
Heater output	20,150 BTU/hr
Sound level (inside cab)	70.5 dB(A)
Sound level (exterior)	99.7 dB(A)

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 valve and one 5-spool valve with auxiliary spool - stackable, oil cooler, auto power boost, boom and arm holding valves, o-ring face seals, 6 micron return filter, firewall.

Hydraulic Pumps

Maximum flow	2 x 64.2 gpm (2 x 243 l/min)
Pilot pump maximum flow	7.1 gpm (27 l/min)

Relief Valve Settings

Boom/arm/bucket	4,970 psi (343 bar)
in Power-Boost Mode	5,400 psi (373 bar)
Swing circuit	4,260 psi (294 bar)
Travel	4,970 psi (343 bar)

Hydraulic Cylinders

	number of cylinders – bore x rod x stroke
Boom	2 – 5.5" x 3.7" x 53.9" (140 mm x 95 mm x 1 369 mm)
Arm	1 – 5.9" x 4.1" x 61.8" (150 mm x 105 mm x 1 569 mm)
Bucket	1 – 5.3" x 3.5" x 42.4" (135 mm x 90 mm x 1 078 mm)

Hydraulic Oil Filtration

Return filter	6 micron
Pilot filter	8 micron
Suction screen	150 micron



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	0 – 10.2 rpm
Tail swing	10' 4" (3.16 m)
Swing torque	68,224 lbf-ft. (92.5 kN·m)

Undercarriage

X Pattern carbody with 15' 11" (4.85 m) LC long undercarriage by 8' 6" (2.6 m) track gauge, sealed and strutted 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, swivel guard.

Carrier rollers	2 per side
Track rollers	9 per side
Track link pitch	7.99" (203 mm)
Shoes	50 per side
Shoe width	31.5" (800 mm)
Ground pressure	6.24 psi (.43 bar)

Lubricant and Coolant Capacity

Fuel tank	118.88 gal. (450 liters)
Hydraulic tank	38.8 gal. (147 liters)
Hydraulic system	79.25 gal. (300 liters)
Final drive (per side)	2.4 gal. (9.1 liters)
Swing drive	1.59 gal. (6 liters)
Engine oil	10.04 gal. (38 liters)
Cooling system	7.66 gal. (29 liters)

Travel System

Two-speed independent hydrostatic travel with compact axial piston motors. Hydraulic motor powered output shaft coupled to a planetary reduction unit and track sprocket. All hydraulic components mounted within the width of side frame. Automatic downshift. Single pedal travel. Spring applied, hydraulically released disc parking brake built into each motor. Each travel motor equipped with counterbalance valve to prevent overspeeding down an incline.

Max. travel speed	2.0 - 3.5 mph (3.2 - 5.6 km/h)
Drawbar pull	52,380 lbf (233 kN)
Gradeability	70% (35°)

Attachment

Boom	20' 2" (6.15 m)
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Available Arms

	Digging Force*
• 10' 5" (3.18 m)	27,340 lbf (122 kN)
with Auto Power-Boost applied	29,760 lbf (132 kN)
• 8' 8" (2.65 m)	31,520 lbf (140 kN)
with Auto Power-Boost applied	34,400 lbf (153 kN)
• 12' 0" (3.66 m)	24,680 lbf (110 kN)
with Auto Power-Boost applied	26,680 lbf (119 kN)

Bucket Digging Force	39,250 lbf (175 kN)
with Auto Power-Boost applied	42,760 lbf (190 kN)

*Digging force ratings are based on ISO 6015, "Earthmoving Machinery – Hydraulic Excavators – Tool Forces."

Fuel Usage*

Heavy	5.73 gal / hr (21.68 liter / hr)
Average	4.65 gal / hr (17.61 liter / hr)
Light	3.81 gal / hr (14.42 liter / hr)

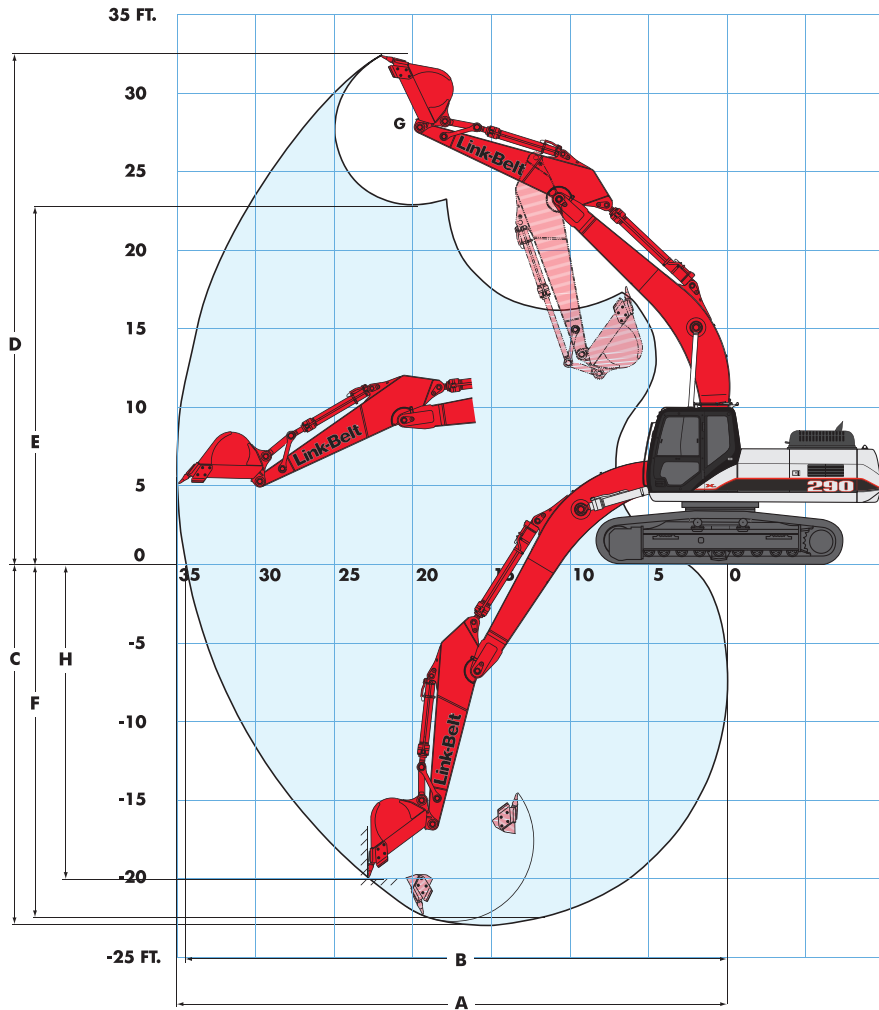
*Fuel economy varies widely depending on application. "Heavy" represents nearly continuous operation in tough digging applications in SP Mode. "Light" represents easy digging applications utilizing the machine about 50% of the time in SP Mode.

Operating Weight

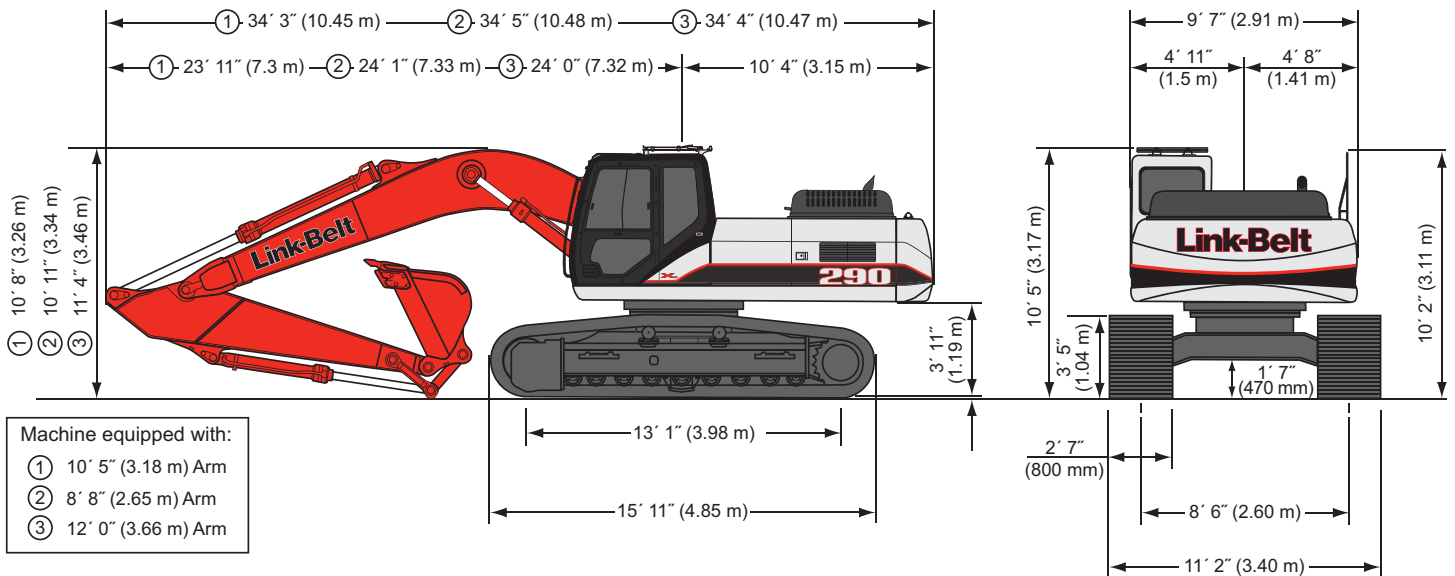
Working weight with 31.5" (800 mm) shoes, 20' 2" (6.15 m) boom, 10' 5" (3.18 m) arm, 1,940 lb. (880 kg) bucket	65,700 lbs (29,800 kg)
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290 X2 Specifications

Working Ranges



Machine equipped with 20' 2" (6.15 m) boom	10' 5" Arm (3.18 m)	8' 8" Arm (2.65 m)	12' 0" Arm (3.66 m)
A. Maximum reach	35' 0" (10.67 m)	33' 6" (10.22 m)	36' 7" (11.16 m)
B. Maximum reach @ ground level	34' 5" (10.50 m)	32' 11" (10.04 m)	36' 1" (10.99 m)
C. Maximum dig depth	23' 4" (7.10 m)	21' 7" (6.57 m)	24' 10" (7.58 m)
D. Maximum dig height	33' 0" (10.06 m)	32' 7" (9.93 m)	34' 1" (10.39 m)
E. Maximum dump height	23' 3" (7.09 m)	22' 9" (6.94 m)	24' 3" (7.39 m)
F. Digging depth – 8' (2.44 m) level bottom	22' 9" (6.94 m)	21' 0" (6.39 m)	24' 5" (7.44 m)
G. Bucket rotation	176°	176°	176°
H. Maximum vertical wall depth	20' 1" (6.12 m)	18' 11" (5.76 m)	22' 1" (6.72 m)



290 X2 Specifications

Lifting Capacities

10' 5" (3.18 m) Arm with 20' 2" (6.15 m) Boom and 1,778 lb. (806 kg) Bucket with Power-Boost Applied

		Radius of Load											
		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
+30' 0"	lbs / (kg)											8,450* / (3,832*)	8,450* / (3,832*)
+25' 0"	lbs / (kg)											7,850* / (3,560*)	7,850* / (3,560*)
+20' 0"	lbs / (kg)											7,600* / (3,447*)	7,600* / (3,447*)
+15' 0"	lbs / (kg)											7,700* / (3,492*)	7,150 / (3,243)
+10' 0"	lbs / (kg)	39,200* / (17,781*)	39,200* / (17,781*)	26,200* / (11,884*)	25,500* / (11,566*)	20,300* / (9,208*)	16,250 / (7,371)	17,350* / (7,869*)	16,950* / (7,688*)	15,700* / (7,121*)	11,850 / (5,375)	13,300* / (6,032*)	12,150 / (5,511)
+5' 0"	lbs / (kg)	18,200* / (8,255*)	18,200* / (8,255*)	33,350* / (15,127*)	23,600 / (10,705)	23,200* / (10,523*)	15,300 / (6,940)	23,200* / (10,523*)	15,300 / (6,940)	17,050 / (7,734)	10,850 / (4,922)	17,200* / (7,801*)	11,350 / (5,148)
Ground	lbs / (kg)	19,800* / (8,981*)	19,800* / (8,981*)	35,700* / (16,193*)	22,300 / (10,115)	23,600 / (10,705)	14,500 / (6,577)	23,600 / (10,705)	14,500 / (6,577)	16,600 / (7,530)	10,400 / (4,717)	16,600 / (7,530)	10,400 / (4,717)
-5' 0"	lbs / (kg)	25,600* / (11,612*)	25,600* / (11,612*)	35,750* / (16,216*)	21,850 / (9,911)	23,100 / (10,478)	14,100 / (6,396)	23,100 / (10,478)	14,100 / (6,396)	16,300 / (7,394)	10,100 / (4,581)	12,350 / (5,602)	7,700 / (3,493)
-10' 0"	lbs / (kg)	34,000* / (15,422*)	34,000* / (15,422*)	34,100* / (15,467*)	21,950 / (9,957)	23,050 / (10,455)	14,050 / (6,373)	23,050 / (10,455)	14,050 / (6,373)	16,250 / (7,371)	10,050 / (4,559)		
-15' 0"	lbs / (kg)	42,000* / (19,051*)	42,000* / (19,051*)	29,850* / (13,539*)	22,350 / (10,138)	22,150* / (10,047*)	14,250 / (6,464)	22,150* / (10,047*)	14,250 / (6,464)				
-20' 0"	lbs / (kg)	29,100* / (13,199*)	29,100* / (13,199*)	21,100* / (9,570*)	21,100* / (9,570*)								

8' 8" (2.65 m) Arm with 20' 2" (6.15 m) Boom and 1,914 lb. (868 kg) Bucket with Power-Boost Applied

		Radius of Load											
		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
+25' 0"	lbs / (kg)											9,950* / (4,513*)	9,950* / (4,513*)
+20' 0"	lbs / (kg)											9,650* / (4,377*)	8,750 / (3,969)
+15' 0"	lbs / (kg)											9,700* / (4,400*)	7,700 / (3,493)
+10' 0"	lbs / (kg)											10,050* / (4,559*)	7,150 / (3,243)
+5' 0"	lbs / (kg)											10,650* / (4,831*)	7,050 / (3,198)
Ground	lbs / (kg)	18,450* / (8,368*)	18,450* / (8,368*)	35,750* / (16,216*)	22,050 / (10,002)	23,450 / (10,637)	14,400 / (6,532)	23,450 / (10,637)	14,400 / (6,532)	16,500 / (7,484)	10,350 / (4,695)	12,450 / (5,647)	7,800 / (3,538)
-5' 0"	lbs / (kg)	26,350* / (11,952*)	26,350* / (11,952*)	35,400* / (16,057*)	21,950 / (9,957)	23,100 / (10,478)	14,100 / (6,396)	23,100 / (10,478)	14,100 / (6,396)	16,300 / (7,394)	10,150 / (4,604)	12,900 / (5,851)	8,100 / (3,674)
-10' 0"	lbs / (kg)	37,500* / (17,010*)	37,500* / (17,010*)	32,900* / (14,923*)	22,150 / (10,047)	23,150 / (10,501)	14,150 / (6,418)	23,150 / (10,501)	14,150 / (6,418)	16,350 / (7,416)	10,200 / (4,627)		
-15' 0"	lbs / (kg)	37,550* / (17,032*)	37,550* / (17,032*)	27,450* / (12,451*)	22,700 / (10,297)	20,200* / (9,162*)	14,500 / (6,577)	20,200* / (9,162*)	14,500 / (6,577)				

12' 0" (3.66 m) Arm with 20' 2" (6.15 m) Boom and 1,741 lb. (790 kg) Bucket with Power-Boost Applied

		Radius of Load											
		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
+30' 0"	lbs / (kg)											7,100* / (3,221*)	7,100* / (3,221*)
+25' 0"	lbs / (kg)											6,550* / (2,971*)	6,550* / (2,971*)
+20' 0"	lbs / (kg)											6,350* / (2,880*)	6,350* / (2,880*)
+15' 0"	lbs / (kg)											6,400* / (2,903*)	6,400* / (2,903*)
+10' 0"	lbs / (kg)	19,100* / (8,663*)	19,100* / (8,663*)	24,000* / (10,886*)	24,000* / (10,886*)	18,900* / (8,573*)	16,500 / (7,484)	18,900* / (8,573*)	16,500 / (7,484)	16,200* / (7,348*)	11,450 / (5,194)	13,950 / (5,919)	8,350 / (3,788)
+5' 0"	lbs / (kg)	23,950* / (10,863*)	23,950* / (10,863*)	31,050* / (14,084*)	24,000 / (10,886)	22,050* / (10,001*)	15,400 / (6,985)	22,050* / (10,001*)	15,400 / (6,985)	17,100 / (7,757)	10,850 / (4,922)	12,700 / (5,761)	8,000 / (3,629)
Ground	lbs / (kg)	20,150* / (9,140*)	20,150* / (9,140*)	34,900* / (15,830*)	22,350 / (10,138)	23,650 / (10,728)	14,500 / (6,577)	23,650 / (10,728)	14,500 / (6,577)	16,550 / (7,507)	10,350 / (4,695)	12,400 / (5,625)	7,750 / (3,515)
-5' 0"	lbs / (kg)	23,950* / (10,863*)	23,950* / (10,863*)	35,600* / (16,148*)	21,650 / (9,820)	23,000 / (10,433)	14,000 / (6,350)	23,000 / (10,433)	14,000 / (6,350)	16,150 / (7,326)	10,000 / (4,536)	12,200 / (5,534)	7,550 / (3,425)
-10' 0"	lbs / (kg)	30,600* / (13,880*)	30,600* / (13,880*)	34,600* / (15,694*)	21,600 / (9,798)	22,800 / (10,342)	13,800 / (6,260)	22,800 / (10,342)	13,800 / (6,260)	16,050 / (7,280)	9,900 / (4,491)	12,150* / (5,511*)	7,550 / (3,425)
-15' 0"	lbs / (kg)	42,600* / (19,323*)	42,600* / (19,323*)	31,300* / (14,197*)	21,950 / (9,957)	22,900 / (10,387)	13,950 / (6,328)	22,900 / (10,387)	13,950 / (6,328)	16,200 / (7,348)	10,000 / (4,536)		
-20' 0"	lbs / (kg)	34,100* / (15,467*)	34,100* / (15,467*)	24,350* / (11,045*)	22,450 / (10,183)	17,250* / (7,824*)	14,500 / (6,577)	17,250* / (7,824*)	14,500 / (6,577)				

Notes: Excavator lifting capacities

- Lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities.
- 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.
- 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.**
- Least stable position is over the side.
- Operator should be fully acquainted with the Operator's Manual & Operating Safety Booklet, furnished by LBX before operating the machine.
- Capacities apply only to the machine as originally manufactured and normally equipped by LBX Company, LLC.
- Lift capacity ratings are based on SAE J/ISO 10567, "Earthmoving Machinery – Hydraulic Excavators – Lift Capacity."

290 X2 Specifications

Bucket Sizes

Bucket Type	SAE Heaped Capacity		Width Outside Lip		Bucket Weight		Number of Teeth	Arm Length		
	(yd ³)	(m ³)	(in)	(mm)	(lbs)	(kg)		8'-8" 2.65m	10'-5" 3.18m	12'-0" 3.66m
STDP	0.79	0.60	24	610	1571	713	4	H	H	H
	1.05	0.80	30	762	1702	772	4	H	H	H
	1.32	1.01	36	914	1909	866	5	H	H	H
	1.60	1.22	42	1067	2075	941	5	H	H	M
	1.87	1.43	48	1219	2206	1001	5	M	M	L
	2.15	1.64	54	1372	2413	1095	6	M	L	L
	2.43	1.86	60	1524	2544	1154	6	L	L	N/A
HDP	0.79	0.60	24	610	2003	909	3	H	H	H
	1.05	0.80	30	762	2267	1028	4	H	H	H
	1.32	1.01	36	914	2472	1121	4	H	H	H
	1.59	1.22	42	1067	2737	1242	5	H	M	M
	1.87	1.43	48	1219	2941	1334	5	M	M	L
	2.15	1.64	54	1372	3206	1454	6	L	L	N/A
XDP	0.69	0.53	24	610	2316	1051	3	H	H	H
	0.93	0.71	30	762	2635	1195	4	H	H	H
	1.17	0.89	36	914	2874	1304	4	H	H	H
	1.42	1.09	42	1067	3194	1449	5	H	H	M
	1.67	1.28	48	1219	3433	1557	5	M	M	L
SCOOP	0.76	0.58	24	610	3025	1372	3	H	H	H
	0.88	0.75	30	762	3183	1444	4	H	H	H
	1.21	0.93	36	914	3392	1539	4	H	H	M
	1.44	1.10	42	1067	3552	1611	5	H	M	M
	1.68	1.28	48	1219	3709	1682	5	M	L	L
	1.91	1.46	54	1372	3920	1778	6	L	L	N/A
DITCH	1.30	0.99	60	1524	1767	802	0	H	H	H
	1.45	1.11	66	1676	1928	875	0	H	H	H

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

Approval Code For Arm/Bucket Combinations

H..... Heavy material (up to 3,370 lbs./yd³)
M..... Medium material (up to 2,700 lbs./yd³)
L..... Light material (up to 2,020 lbs./yd³)
N/A..... Not applicable

Standard Equipment

- KAB 815 sliding/reclining suspension seat with adjustable 4-inch armrests, lumbar support and retractable seat belt
- Safety glass front window with auto lock, windshield wiper and washer with intermittent speeds, Lexan® side and rear tinted windows
- 4-position tilting consoles with memory position and hydraulic lock-out
- Auto climate control a/c and heat
- AM/FM stereo with mute button, horn, interior light, digital clock, hour meter, floor mat, cup holder, sun shade, storage, LH and RH rear view mirrors
- Single pedal travel
- Travel alarm with cancel switch
- Vandal guarding with bolt-on FOG capability
- EPA Tier III Isuzu diesel engine
- Common rail fuel injection
- Turbocharger with intercooler
- Neutral safety start
- Idle start
- Glow plug pre-heat
- Auto engine warm-up
- Auto idling system
- One-touch idle
- Dual remote fuel filters with water separation
- Double element air filter with in-cab restriction indicator
- External fuel gauge
- Remote, full-flow engine oil filter
- Green plug engine oil drain
- EPF Engine Protection
- Emergency engine stop
- Open-center hydraulic system
- Four selectable work modes including attachment mode
- Auto power boost
- Auto swing priority
- Pre-set auxiliary pump settings - 10
- Auxiliary valve
- Stackable main control valve
- Auxiliary pipe brackets
- Control levers pre-wired for auxiliary
- Control pattern changer
- Long undercarriage
- Sealed and lubricated track chain
- Two-speed with auto shift and straight travel
- Planetary drive
- Spring-applied, hydraulic release brake
- Hydraulic track adjust
- Swivel guard belly pan
- Track guide
- Vandal locks with common key
- 11,905 lb (5,419 kg) counterweight with lifting eyes
- Hand rail
- Tool box
- 20-ft 2-in boom
- EMS (Extended Maintenance System) 1,000 hour service interval throughout entire attachment except bucket
- Attachment cushion valve
- Arm and boom speed assistance
- Arm and boom regeneration
- Arm and boom holding valves
- Cylinder cushion
- Centralized lube bank
- Bucket anti-clatter device
- Illuminated LCD service monitor
- On-board diagnostic system
- Anti-theft device
- 12-volt accessory outlet
- 70-watt work lights on boom and upper

Options

- Arms
 - 10-ft 5-in (3.18 m)
 - 8-ft 8-in (2.65 m)
 - 12-ft 0-in (3.66 m)
- Tracks
 - 31.5-in (800 mm) 3-bar grouser
 - 27.5-in (700 mm) 3-bar grouser
- Hydraulics
 - Single-acting with switch or pedal activation
 - Multi-function with switch or pedal activation and in-cab flow direction control
 - Thumb hydraulics with switch activation
 - 2nd and 3rd auxiliary with pedal activation
- Couplers
 - ESCO multi-pin grabber
 - Hendrix hydraulic coupler
- Thumbs
 - ESCO Universal rigid
 - ESCO Hydraulic non-link
 - ESCO Hydraulic non-link for coupler
 - ESCO Hydraulic link
 - ESCO Hydraulic link for coupler
- Cab lights - exterior
- Air-suspension seat
- Free Swing
- Cyclone pre-clean air filter
- FOG guard
- Front guard - mesh or bars
- Vandal cover for left window
- Attachment reinforcement plating
- HD bucket linkage
- Track guides - triple



LBX Company is the proud maker of quality Link-Belt excavators and is located in Lexington, KY.

www.lbxco.com

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