

## Specifications

### Engine

Isuzu CC-6BG1TC Electric engine control, water cooled, 4-cycle diesel, 6 cylinder, turbocharged with intercooler, 396 CID (6 494 cc), 4.13" (105 mm) bore x 4.92" (125 mm) stroke. EPA Tier II compliant.

SAE net horsepower .....	177 HP (132 kW) @ 2,200 rpm
Maximum torque .....	443 ft.-lbs. (600 N-m) @ 1,800 rpm
Starter .....	Electric, 24V
Alternator .....	50 amp
Battery Cold Cranking .....	780 amps
Air cleaner .....	Double element
Governor .....	Electronic

### Hydraulic System

Two variable displacement axial piston pumps and one gear pump for pilot controls, with Link-Belt Inte-LX™ Control System. Link-Belt Inte-LX™ Control includes: electric engine control, five selectable working modes, automatic power-up, auto/one touch idling, automatic speed shifting, free swing, cushioned attachment, swing anti-braking system, and two safety lockout switches including gate lock.

#### Hydraulic Pumps

Two variable volume piston pumps provide power for attachment, swing and travel.

Auxiliary pump for grapple rotate.

Maximum flow .....	2 x 58.4 gpm (2 x 221 l/min)
Pilot pump max. flow .....	5.8 gpm (22 l/min)
Aux. pump max. flow .....	7.9 gpm (30 l/min)

#### Relief Valve Settings

Attachment .....	4,970 psi (350 kg/cm <sup>2</sup> )
In Power Up Mode .....	5,410 psi (380 kg/cm <sup>2</sup> )
Swing circuit .....	4,265 psi (300 kg/cm <sup>2</sup> )
Travel .....	4,970 psi (350 kg/cm <sup>2</sup> )

#### Oil Filtration

Nephron® filter .....	1 micron
Return, pilot .....	10 micron
Suction filter .....	105 micron

**Control Valve** One 4-spool valve and one 5-spool valve with auxiliary spool.

### Cab and Controls

Cab mounted on 6 fluid filled mountings. Features include a safety glass front window and LEXAN® MARGARD™ rear and side windows, reclining/sliding suspension seat with headrest, armrests, lumbar support, heater, air conditioner, AM/FM stereo, cigarette lighter, pop-up skylight window, and intermittent wiper with washer. Front window slides upward for storage and the lower front window is removable. Control levers are located in 3-position tilting control consoles. Reliable soft-touch switches. Easy-to-read illuminated LCD service monitor keeps operator in touch with critical machine functions.

Heater output .....	20,240 BTU/hr (5 100 kcal/hr)
A/C output .....	18,250 BTU/hr (4 600 kcal/hr)

### 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. Swing cushion valve and dual stage relief valves for smooth swing deceleration and stops. Mechanical disc swing brake. Auto power swing.

Swing speed .....	0 – 8.1 rpm
Tail swing .....	10' 5" (3.18 m)
Swing torque .....	81,870 ft.-lbs. (111 kNm)

### Undercarriage

High-wide X-style carbody is integrally welded for strength and durability. Grease cylinder track adjusters with shock absorbing springs. LC undercarriage with sealed track, lubricated rollers and idlers. Two-bar grouser track shoes.

Carrier rollers .....	2 per side
Track rollers .....	8 per side
Track link pitch .....	8.5" (216 mm)
Shoes .....	48 per side
Shoe width .....	27.5" (700 mm)
Ground pressure .....	7.55 psi (.53 kg/cm <sup>2</sup> )
Ground pressure (fully equipped) .....	8.34 psi (.59 kg/cm <sup>2</sup> )

### Travel System

Two-speed independent hydrostatic travel with compact axial piston motors for increased performance. 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:** When operating in difficult travel conditions, the travel motor automatically downshifts from high to low speed for increased tractive effort and then automatically returns to high speed when travel conditions permit.

Max. travel speed .....	1.6/2.5 mph (2.5/4.1 km/h)
Traction force .....	61,820 lbs. (28 041 kgf)
Gradeability .....	70%

Spring applied, hydraulically released disc parking brake built into each motor. Each travel motor equipped with counterbalance valve to prevent overspeeding down an incline and 3-stage reliefs for smooth starts and stops.

### Lubricant and Coolant Capacity

Hydraulic tank .....	32 gal. (120 liters)
Hydraulic system .....	63 gal. (240 liters)
Final drive (per side) .....	2.9 gal. (11 liters)
Swing drive .....	1.6 gal. (6.0 liters)
Engine .....	6.3 gal. (24 liters)
Fuel tank .....	90 gal. (340 liters)
Cooling system .....	7.7 gal. (29 liters)

### Operating Weight

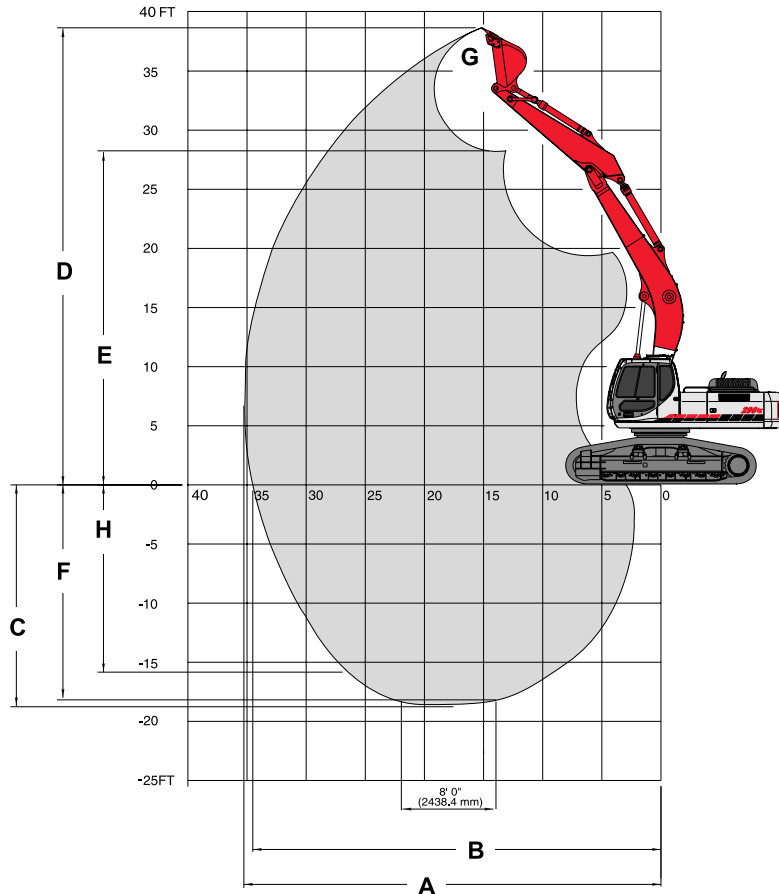
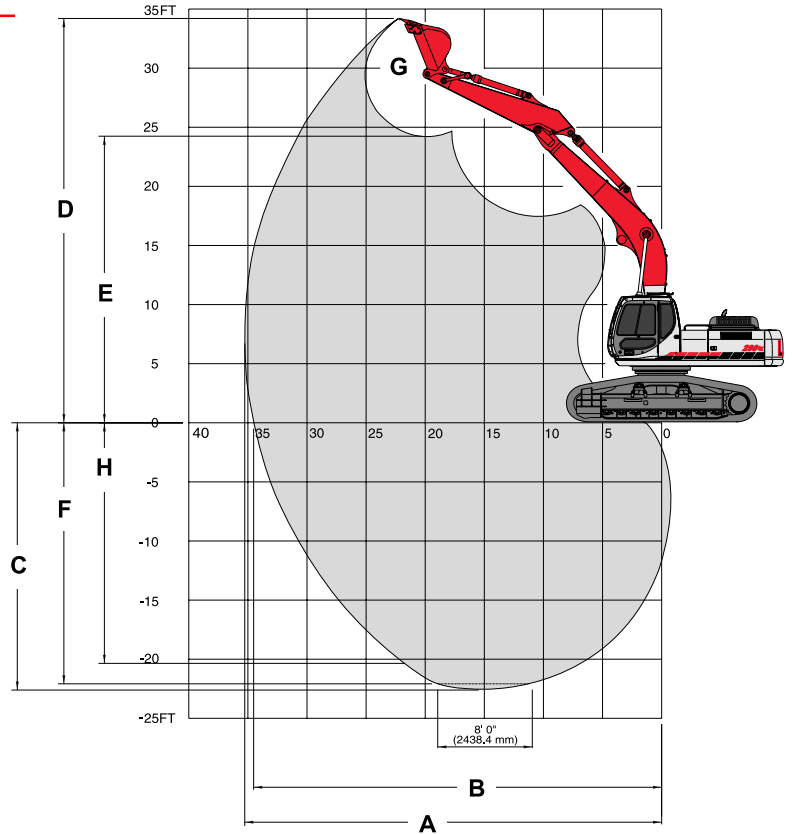
Working weight with 27.5" (700 mm) shoes, 10'-6" (3.2 m) arm, 1/2 tank of fuel and a 1778 lb. (806 kg) bucket .....

Working weight with HD Guarding, quick attachment, thumb, 27.5" (700 mm) shoes, 10' 6" (3.2 m) arm, 1/2 tank of fuel and a 1,778 lb. (806 kg) bucket .....

# Working Ranges

**290 Road Builder**  
with hoist cylinders in standard lift position

Machine equipped with 20' 2" (6.15 m) boom.	10' 6" Arm (3.20 m)
<b>A</b> Max. digging radius	35' 3" (10.75 m)
<b>B</b> Max. digging radius @ ground level	34' 6" (10.52 m)
<b>C</b> Max. digging depth	22' 7" (6.89 m)
<b>D</b> Max. digging height	34' 2" (10.42 m)
<b>E</b> Max. dumping height	24' 3" (7.39 m)
<b>F</b> Digging depth - 8" (2.44 m) level bottom	22' 1" (6.73 m)
<b>G</b> Bucket wrist angle	177°
<b>H</b> Max. vertical wall depth	20' 4" (6.20 m)



**290 Road Builder**  
with hoist cylinders in high lift position

Machine equipped with 20' 2" (6.15 m) boom.	10' 6" Arm (3.20 m)
<b>A</b> Max. digging radius	35' 3" (10.75 m)
<b>B</b> Max. digging radius @ ground level	34' 6" (10.52 m)
<b>C</b> Max. digging depth	18' 9" (5.71 m)
<b>D</b> Max. digging height	38' 7" (11.77 m)
<b>E</b> Max. dumping height	28' 3" (8.60 m)
<b>F</b> Digging depth - 8" (2.44 m) level bottom	18' 2" (5.55 m)
<b>G</b> Bucket wrist angle	177°
<b>H</b> Max. vertical wall depth	15' 9" (4.81 m)

# Lifting Capacities

290 LX Road Builder in standard lift position  
w/1,778 lb. (806.4 kg) bucket, and 10' 6" (3.20 m) arm

Bucket Hook Height		Radius of Load									
		10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		Cap. @ Max. reach	
		End	Side	End	Side	End	Side	End	Side	End	Side
25' 0" (7.62 m)	lbs. kg									8,300* 3 760*	8,300* 3 760*
20' 0" (6.10 m)	lbs. kg							11,350* 5 140*	11,350* 5 140*	8,200* 3 710*	8,200* 3 710*
15' 0" (4.57 m)	lbs. kg					16,450* 7 460*	16,450* 7 460*	14,650* 6 640*	14,650* 6 640*	8,450* 3 830*	8,450* 3 830*
10' 0" (3.05 m)	lbs. kg	29,700* 13 470*	29,700* 13 470*	25,300* 11 470*	25,300* 11 470*	19,150* 8 680	19,150* 8 680	16,000* 7 250*	14,950* 6 780	9,050* 4 100*	9,050* 4 100*
5' 0" (1.52 m)	lbs. kg	14,450* 6 550*	14,450* 6 550*	30,050* 13 630*	30,050* 13 630*	21,650* 9 820*	20,100* 9 110	17,300* 7 840*	14,450* 6 550	10,150* 4 600*	10,150* 4 600*
0' 0" (0 m)	lbs. kg	19,050* 8 640*	19,050* 8 640*	32,150* 14 580*	30,100* 13 650	23,200* 10 520*	19,450* 8 820	18,150* 8 230*	14,050* 6 370	12,000* 5 440*	11,300* 5 120
-5' 0" (-1.52 m)	lbs. kg	27,000* 12 240*	27,000* 12 240*	31,850* 14 440*	29,750* 13 490	23,350* 10 590*	19,100* 8 660	18,100* 8 210*	13,850* 6 280	15,350* 6 960*	12,250* 5 550
-10' 0" (-3.05 m)	lbs. kg	37,450* 16 980*	37,450* 16 980*	29,300* 13 290*	29,300* 13 290*	21,800* 9 880*	19,150* 8 680			16,950* 7 680*	14,400* 6 530
-15' 0" (-4.57 m)	lbs. kg	32,550* 14 760*	32,550* 14 760*	23,850* 10 810*	23,850* 10 810*					17,450* 7 910*	17,450* 7 910*

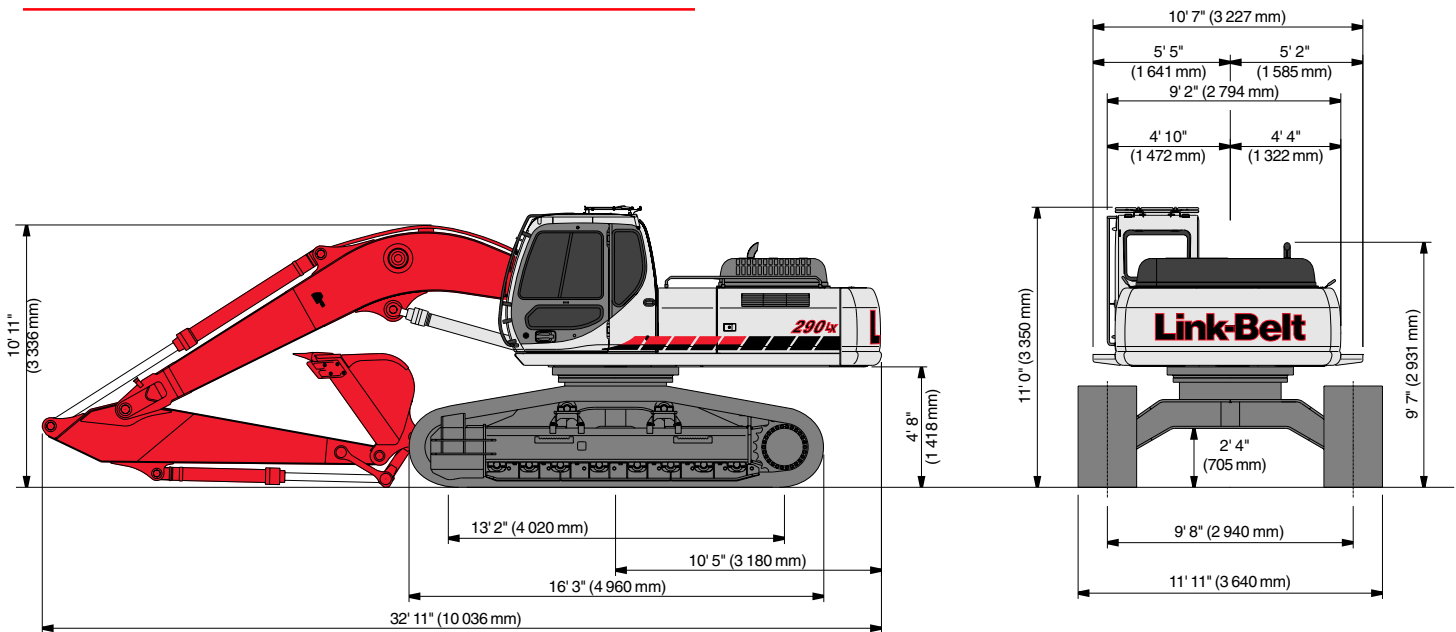
290 LX Road Builder in high lift position  
w/1,778 lb. (806.4 kg) bucket, and 10' 6" (3.20 m) arm

Bucket Hook Height		Radius of Load									
		10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		Cap. @ Max. reach	
		End	Side	End	Side	End	Side	End	Side	End	Side
25' 0" (7.62 m)	lbs. kg					12,250* 5 550*	12,250* 5 550*			8,300* 3 760*	8,300* 3 760*
20' 0" (6.10 m)	lbs. kg					14,750* 6 690*	14,750* 6 690*	11,350* 5 140*	11,350* 5 140*	8,200* 3 710*	8,200* 3 710*
15' 0" (4.57 m)	lbs. kg	31,150* 14 120*	31,150* 14 120*	23,600* 10 700*	23,600* 10 700*	19,550* 8 860*	19,550* 8 860*	15,000* 6 800*	15,000* 6 800*	8,450* 3 830*	8,450* 3 830*
10' 0" (3.05 m)	lbs. kg	29,700* 13 470*	29,700* 13 470*	29,950* 13 580*	29,950* 13 580*	22,300* 10 110*	21,050* 9 540	18,050* 8 180*	14,900* 6 750	9,050* 4 100*	9,050* 4 100*
5' 0" (1.52 m)	lbs. kg	14,450* 6 550*	14,450* 6 550*	32,600* 14 780*	31,100* 14 100	23,650* 10 720*	20,100* 9 110	18,550* 8 410*	14,400* 6 530	10,150* 4 600*	10,150* 4 600*
0' 0" (0 m)	lbs. kg	19,050* 8 640*	19,050* 8 640*	32,150* 14 580*	30,100* 13 650	23,650* 10 720*	19,400* 8 790	18,250* 8 270*	14,000* 6 350	12,000* 5 440*	11,300* 5 120
-5' 0" (-1.52 m)	lbs. kg	27,000* 12 240*	27,000* 12 240*	29,000* 13 150*	29,000* 13 150*	21,850* 9 910*	19,100* 8 660	16,600* 7 520*	13,850* 6 280	14,400* 6 530*	12,250* 5 550
-10' 0" (-3.05 m)	lbs. kg	28,750* 13 040*	28,750* 13 040*	23,250* 10 540*	23,250* 10 540*	17,850* 8 090*	17,850* 8 090*			13,250* 6 010*	13,250* 6 010*

## 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 shown include a bucket with the weight as indicated. If a heavier bucket, harvesting processor or other tool is used the additional weight must be deducted from the ratings.
- 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, sudden stopping of loads, or other unfavorable job conditions.
- 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.
- These capacities apply to machines having 5410 psi boom hoist cylinder pressure.
- Least stable position is over the side.
- Operator should be fully acquainted with the Operator's Manual & Operating Safety Booklet, furnished by the manufacturers before operating the machine.
- Capacities apply only to the machine as originally manufactured and normally equipped by LBX Company LLC. Additional equipment, such as quick-attach bucket adaptors, thumbs, heel racks and similar items will require deductions to the listed capacities.
- Lift capacity ratings are calculated per SAE J/ISO 10567, "Earthmoving Machinery – Hydraulic Excavators – Lift Capacity".

## Dimensions



## Standard Equipment

- Inte-LX™ Computer System
- Self-diagnostic system
- Five selectable working modes
- One-touch decelerator
- Auto idling system
- Auto idle start
- Low idle up
- Auto engine warm up
- Auto power-up mode
- Cushioned attachment control
- Free swing control
- Auto power swing
- Travel alarm
- Nephron® filtration system
- Swing-out oil cooler
- Low noise/low vibration cab floating on 6 fluid filled mounts
- Sliding/reclining, suspension cloth upholstered seat with adjustable arm rests and lumbar support, retracting seat belt
- 3-position tilting consoles
- 4th position on left console for entering and exiting the cab also serves as control lock-out
- Illuminated LCD service monitor
- Climate control heater and air conditioner
- Horn, interior lighting, AM/FM STEREO radio, digital clock, floor mat, cigarette lighter
- Safety glass front windows with automatic lock and intermittent rise-up windshield wiper and washer, large LEXAN® rear/side windows
- Gate lock and gate lock lever (control lock-out device)
- Vandalism locks/guarding
- Common key for cab & house doors, engine hood, tool box, and fuel cap
- Hand grab rails both sides
- Rear view mirror, coat hook, storage compartment
- High-Wide undercarriage
- Chrome plated boom foot pin with oil impregnated bushing
- Grapple open/close rotate system
- 15,233 lbs. (6 910 kg) counterweight
- 20' 2" (6.15 m) Excavator boom w/high-lift hoist cylinder bracket
- 10' 6" (3.20 m) Excavator arm

## Optional Equipment

- 14" Fixed cab riser
- Heavy duty upper and lower undercovers
- Heavy duty logging guarding package
- Auxiliary fuel tank for right hand front corner