



DX235LCR TECHNICAL DATA





GENERAL SPECIFICATIONS

ITEMS		UNIT	STANDARD
ENGINE	MODEL		Doosan DL06
	NUMBER OF CYLINDERS		6
	RATED FLYWHEEL POWER (hp PER SAE J1995) GROSS	hp / rpm	173 / 1,900
		kW / rpm	129 / 1,900
	RATED FLYWHEEL POWER (hp PER SAE J1349) NET	hp / rpm	166 / 1,900
		kW / rpm	124 / 1,900
	MAXIMUM TORQUE (GROSS) (SAE J1995)	ft. lb. / rpm	564 / 1,400
		Nm / rpm	765 / 1,400
	PISTON DISPLACEMENT	in ³	359
		cc	5,890
	BORE AND STROKE	in. x in.	3.9 x 4.9
mm x mm		100 x 125	
STARTER	V / kW	24 V, 4.5 kW	
BATTERIES	V / AH	2 x 12 V x 100 AH	
AIR CLEANER		Double element with auto dust evacuation.	
MAIN PUMPS – 2 VARIABLE DISPLACEMENT AXIAL PISTON PUMPS MAX FLOW	US gpm	2 x 58	
	L / min.	2 x 220.2	
PILOT PUMP (GEAR DESIGN)	MAXIMUM FLOW	US gpm	7.2
		L / min.	27.4
	RELIEF PRESSURE	psi	569
		bar	39
MAXIMUM SYSTEM PRESSURE	BOOM/ARM/BUCKET (NORMAL MODE)	psi	4,978
		bar	343
	BOOM/ARM/BUCKET (POWER MODE)	psi	5,263
		bar	363
	TRAVEL	psi	4,978
		bar	343
SWING	psi	4,267	
	bar	294	
UNDERCARRIAGE	UPPER ROLLERS		2 each track (STD. Shoes)
	LOWER ROLLERS		9 each track
	NUMBER OF SHOES (LINKS PER SIDE)		49 each track (Triple Grouser)
	TOTAL LENGTH OF TRACK	ft. in.	14'7"
mm		4,445	
ENVIRONMENT	SOUND LEVEL (2000/14/EC)	dB(A)	103
	CABIN SOUND LEVEL (ISO 6396)	dB(A)	71
SWING MECHANISM	SWING SPEED	rpm	0 - 11.3
DRIVE SYSTEM	TRAVEL SPEED (FAST/SLOW)	mph	3.6/1.9
		km / h	5.8/3.1
	DRAWBAR PULL	lb.	51,588
		kg	23,400
	MAXIMUM GRADE	%	70
	°	35	

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ITEMS		UNIT	STANDARD
REFILL CAPACITIES	FUEL TANK	US gal.	84.5
		L	320
	COOLING SYSTEM (RADIATOR CAPACITY)	qt.	28.5
		L	27
	ENGINE OIL	qt.	28.5
		L	27
	SWING DRIVE	qt.	5.3
		L	5
	FINAL DRIVE (EACH SIDE)	qt.	3.5
		L	3.3
	HYDRAULIC SYSTEM	US gal.	60.8
		L	230
	HYDRAULIC TANK	US gal.	34.3
		L	130

WEIGHT

BOOM	18'8" (5.7 m)	
ARM	9'6" (2.9 m)	
BUCKET	1.20 yd³ (0.92 m³)	
SHOE WIDTH (TRIPLE GROUSER)	OPERATING WEIGHT	GROUND PRESSURE
2' (600 mm)	52,250 lb. (23,700 kg)	7.11 psi (0.49 bar)
2'4" (700 mm)	52,911 lb. (24,000 kg)	6.12 psi (0.42 bar)
2'8" STD (800 mm)	53,572 lb. (24,300 kg)	5.40 psi (0.37 bar)
2'11" (900 mm)	54,234 lb. (24,600 kg)	4.84 psi (0.33 bar)

HYDRAULIC CYLINDERS

The piston rods and cylinder bodies are made of high-strength steel. A shock absorbing mechanism is fitted in all cylinders to ensure shock-free operation and extend piston life.

CYLINDERS	QUANTITY	BORE x ROD DIAMETER x STROKE
BOOM	2	5.1" x 3.5" x 4'5" (130 x 90 x 1,355 mm)
ARM	1	5.3" x 3.7" x 4'11" (135 x 95 x 1,490 mm)
BUCKET	1	4.7" x 3.1" x 3'6" (120 x 80 x 1060 mm)



BUCKET

CAPACITY		WIDTH		WEIGHT	RECOMMENDATIONS	
SAE, HEAPED	CECE, HEAPED	WITHOUT SIDE CUTTERS	WITH SIDE CUTTERS		18'8" (5,700 mm) BOOM SIZE	
					7'10" (2,400 mm) ARM	9'6" (2,900 mm) ARM
0.67 yd ³ (0.51 m ³)	0.61 yd ³ (0.47 m ³)	2'4" (722 mm)	2'6" (772 mm)	1,168 lb. (530 kg)	A	A
1.06 yd ³ (0.81 m ³)	0.94 yd ³ (0.72 m ³)	3'6" (1,064 mm)	3'8" (1,126 mm)	1,442 lb. (654 kg)	A	A
1.20 yd ³ (0.92 m ³) STD	1.06 yd ³ (0.81 m ³)	3'10" (1,172 mm)	4'1" (1,236 mm)	1,565 lb. (710 kg)	A	B
1.37 yd ³ (1.05 m ³)	1.20 yd ³ (0.92 m ³)	4'3" (1,308 mm)	4'6" (1,370 mm)	1,631 lb. (740 kg)	B	C
1.53 yd ³ (1.17 m ³)	1.31 yd ³ (1.0 m ³)	4'8" (1,428 mm)	4'11" (1,491 mm)	1,753 lb. (795 kg)	C	-
1.67 yd ³ (1.28 m ³)	1.45 yd ³ (1.11 m ³)	5'1" (1,542 mm)	5'3" (1,605 mm)	1,830 lb. (830 kg)	-	-

A. Suitable for materials with density of 3,370 lb. / yd³ (2,000 kg•m³) or less

B. Suitable for materials with density of 2,700 lb. / yd³ (1,600 kg•m³) or less

C. Suitable for materials with density of 1,850 lb. / yd³ (1,100 kg•m³) or less

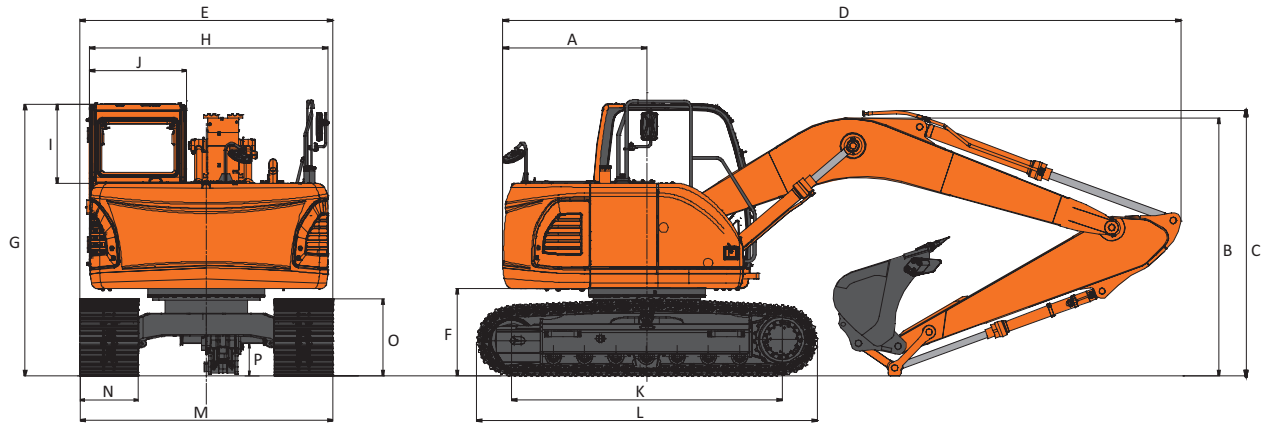
DIGGING FORCE (ISO)

Bucket (PCSA)	0.67 yd ³ (0.51 m ³)	1.06 yd ³ (0.81 m ³)	1.20 yd ³ (0.92 m ³) STD	1.37 yd ³ (1.05 m ³)	1.53 yd ³ (1.17 m ³)	1.67 yd ³ (1.28 m ³)
Digging Force	33,510 lbf.	33,510 lbf.	33,510 lbf.	33,510 lbf.	33,510 lbf.	33,510 lbf.
	15,200 kgf.	15,200 kgf.	15,200 kgf.	15,200 kgf.	15,200 kgf.	15,200 kgf.
	149 kN	149 kN	149 kN	149 kN	149 kN	149 kN

Arm	7'10" (2,400 mm)	9'6" STD (2,900 mm)
Digging Force	27,778 lbf.	23,810 lbf.
	12,600 kgf.	10,800 kgf.
	124 kN	106 kN

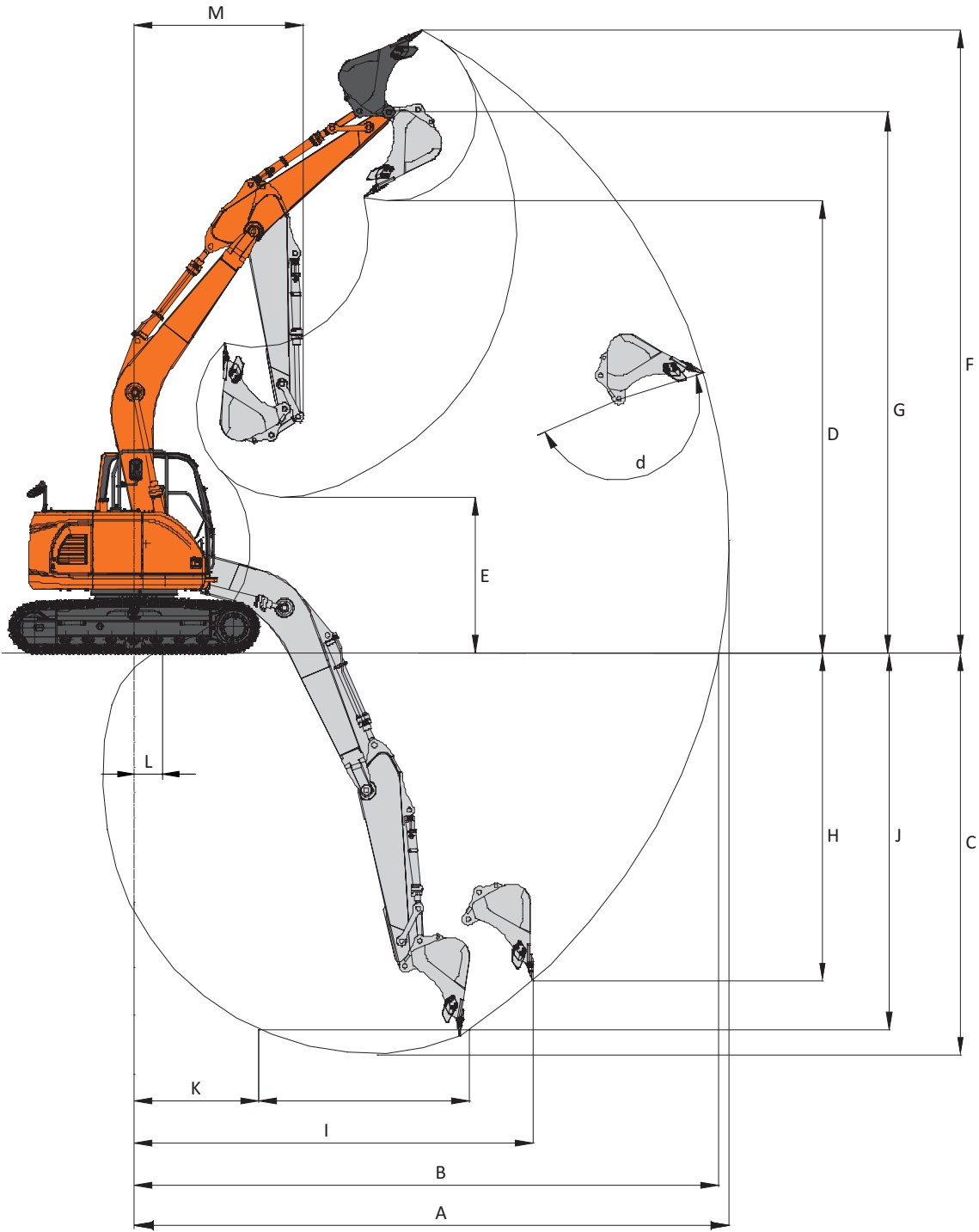
DX235LCR

DIMENSIONS



BOOM TYPE		18'8" STD (5,700 mm)	
ARM TYPE		7'10" (2,400 mm)	9'6" STD (2,900 mm)
BUCKET TYPE (SAE)		1.37 yd ³ (1.05 m ³)	1.20 yd ³ (0.92 m ³) STD
TAIL SWING RADIUS	A	→	5'6" (1,680 mm)
SHIPPING HEIGHT (BOOM)	B	9'9" (2,980 mm)	9'5" (2,870 mm)
SHIPPING HEIGHT (HOSE)	C	10'1" (3,070 mm)	9'8" (2,955 mm)
SHIPPING LENGTH	D	37'6" (11,435 mm)	29'5" (8,955 mm)
SHIPPING WIDTH	E	→	10'6" (3,190 mm)
C/WEIGHT CLEARANCE	F	→	3'4" (1,025 mm)
HEIGHT OVER CABIN	G	→	10'1" (3,080 mm)
HOUSE WIDTH	H	→	9'5" (2,870 mm)
CABIN HEIGHT ABOVE HOUSE	I	→	2'6" (760 mm)
CABIN WIDTH	J	→	3'3" (980 mm)
TUMBLER DISTANCE	K	→	12' (3,650 mm)
TRACK LENGTH	L	→	14'7" (4,445 mm)
UNDERCARRIAGE WIDTH	M	→	10'6" (3,190 mm)
SHOE WIDTH	N	→	2'7" (800 mm)
TRACK HEIGHT	O	→	3'1" (947 mm)
CAR BODY CLEARANCE	P	→	1'7" (480 mm)

WORKING RANGE



DX235LCR

BOOM TYPE		18'8" STD (5,700 mm)	
ARM TYPE		7'10" (2,400 mm)	9'6" STD (2,900 mm)
BUCKET TYPE (SAE)		1.37 yd ³ (1.05 m ³)	1.20 yd ³ (0.92 m ³) STD
MAX. DIGGING REACH	A	30'11" (9,415 mm)	32'3" (9,820 mm)
MAX. DIGGING REACH (GROUND)	B	30'3" (9,215 mm)	31'7" (9,630 mm)
MAX. DIGGING DEPTH	C	20'3" (6,170 mm)	21'11" (6,670 mm)
MAX. LOADING HEIGHT	D	25'3" (7,705 mm)	26'1" (7,955 mm)
MIN. LOADING HEIGHT	E	12'3" (3,740 mm)	10'4" (3,155 mm)
MAX. DIGGING HEIGHT	F	34'8" (10,565 mm)	35'5" (10,795 mm)
MAX. BUCKET PIN HEIGHT	G	30'1" (9,160 mm)	30'10" (9,405 mm)
MAX. VERTICAL WALL DEPTH	H	16'7" (5,050 mm)	17'7" (5,350 mm)
MAX. RADIUS VERTICAL	I	20'7" (6,270 mm)	21'6" (6,550 mm)
MAX. DEPTH TO 8'LINE	J	19'6" (5,940 mm)	21'2" (6,440 mm)
MIN. RADIUS 8'LINE	K	8'9" (2,660 mm)	8'5" (2,570 mm)
MIN. DIGGING REACH	L	5'4" (1,630 mm)	1'4" (395 mm)
MIN. SWING RADIUS	M	8'4" (2,545 mm)	7'7" (2,310 mm)
BUCKET ANGLE (DEG)	d	177°	177°



STANDARD EQUIPMENT

ENGINE

DOOSAN DL06; Turbo Charged and Aftercooled
Electronically Controlled Common Rail Direct Injected
359 cu. in., 6 Cylinder
166 SAE Net Flywheel Horsepower @ 1,900 RPM
Auto Idle System
Equipped with the Fuel Pre-Filter with Water Separator
& Built in Priming Pump
Radiator Reserve Tank
Large Capacity Double Element Air Cleaner with Evacuator
Electronic Engine Speed Control
Engine Overheat and Low Oil Pressure Prevention System

HYDRAULIC SYSTEM

Pilot Operated Control Valves, (9) Spools
Main Pump:
– Parallel, Bent-Axis, Axial Piston, Pressure Setting 4,970 PSI
Pilot Circuit, Gear Type Pump
Swing Motor, Axial Piston Type
Swing Speed Control up to 11.3 RPM
Spring Set, Hydraulic-released Brakes
Travel Motor:
– Axial Piston Type, Automatic 2-Speed Control
Travel Speed (High/Low):
– 3.6 mph / 1.9 mph
In-Shoe Design, Oil Disc Parking Brake
Cross Sensing Pump Control for Fuel Saving
Three Power Modes(PWR/STD/ECO)
Button Control of Flow in Auxiliary Equipment Circuits
Computer-Aided Pump Power Control
e-EPOS (Electronic Power Optimizing System) Controller

CAB

ROPS Cabin
Steel, All Weather Sound Suppressed Type
Fully Automatically Controlled Air Conditioner with Heat
Multi-Function Color LCD Monitor Panel
Cigarette Lighter with Ashtray
Door Locks
Front Windshield Wiper with Washer

Radio:

– AM/FM Stereo with Cassette
Remote Radio On/Off Switch, Control Volume, Channel Selection

Switches:

– Auxiliary Mode Switch
– Engine Emergency Stop Switch
– Work Light Switch
– Travel Speed Selector Switch
– Breaker, Power-Up, Shear Switch

Glass Antenna

Safety Glass, Tinted

Safety Lock Lever

Seat: Suspension with Seat Belt (2 Wide)

– Reclining, Height Adjustable
– Adjustable Arm Rests
– Sliding Control Console
– Weight Adjustment Knob

Skylight

Pull Up Type Front Window

Removable Lower Front Window

Sliding Side Windows

Front Window Air Defroster

Travel Pedals with Hand Levers

Emergency Breakout Tool

Lunch Box with Hot & Cool Air

12V Power Socket

Joystick Lever with 3 Switches

Cup Holder

Room Light

Serial Communication Port for Laptop PC Interface
(DMS, E-Doctor)

Viscous Cab Mounts

ELECTRICAL

Alternator: 60 Amp.

Batteries: (2) 12 Volt, 100 Amp. Hrs. 750 CCA ea

Starter: 24V, 4.5 kW

Lights:

– Halogen Working Light (1) Machine, (2) Boom

STANDARD EQUIPMENT (CONT'D)

Electric Horn

Hour Meter

Alarm Buzzer for:

- Engine Oil Pressure
- Coolant Temperature

Electronic Monitor for:

- Engine Coolant Temperature Gauge
- Fuel Gauge
- Hydraulic Oil Temperature Gauge

Multi-Function Display for:

- Engine RPM
- Battery Voltage
- Front and Rear Hydraulic Pump Pressure
- Hydraulic Oil Overheating Warning
- Fuel Shortage Warning
- Air Cleaner Clogging Warning
- Pilot Filter Clogging Warning
- Return Filter Clogging Warning
- Digital Clock
- Engine Check Warning Light
- Engine Oil Pressure Warning Light
- Charge Warning Light
- Preheat Indicator Light
- Coolant Temperature Warning Light
- Work Light Indicator Light

Operation Modes for:

- Power Mode Select Button
- Economic Mode Select Button
- Flow Rate Control
- Auto Idle Select Button
- 4 Display Selection Buttons

UNDERCARRIAGE

Track Guards and Chains with Adjusters

Track Rollers:

- (2) Upper, (9) Lower Each Side

Triple Grouser Shoes, 49 Each Side; 800 mm Width

OTHER STANDARD EQUIPMENT

Joystick Pattern Change Valve

Counterweight:

- 14,330 lb. (6,500 kg.)

Sealed Pins, Boom, Arm and Bucket Linkages

Swing Mechanism, Internal Gear and Pinion

Integrated Track Spring and Idler

Centralized Lube Points

Large Handrail

Punched Metal Anti-Slip Plates

Ultra-Hard Wear-Resistant Disc at the Bucket Pivot

Engine Restart Prevention System

Self-Diagnostic System

Manuals:

- Parts and Operator's

GPS with 1 Year Subscription

OPTIONAL EQUIPMENT

HYDRAULIC KITS – FACTORY INSTALLED

Single Acting Breaker Kit

Double Acting Thumb Kit

ADDITIONAL OPTIONS – FACTORY INSTALLED

CD Player

Work Lights (2 Front Mounted on Cabin)

Work Lights (4 Front 2 Rear Mounted on Cabin)

Rotating Beacon (Mounted on Cabin)

24V, 80A Alternator

Swing Alarm

Rain Shield

DOOSAN COUPLERS – DEALER INSTALLED

Hydraulic Quick Coupler

Manual Quick Coupler

DOOSAN THUMBS – DEALER INSTALLED

Hydraulic Pro Link Thumb

Mechanical Thumb



LIFTING CAPACITY

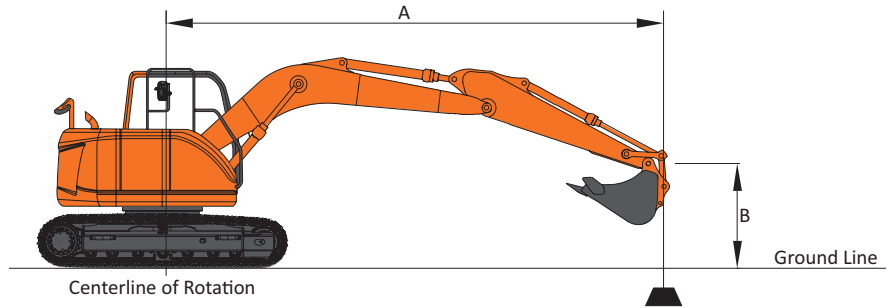
Boom: 18'8" (5,700 mm)

Arm: 7'11" (2,400 mm)

Bucket: SAE 1.37 yd³ (1.05 m³)

Shoe: 32" (800 mm)

Counterweight: 7.14 ton (6.48 metric ton)



Feet Unit: 1,000 lb.

B (ft.) \ A (ft.)	10		15		20		25		MAX. REACH		A (ft.)
25			*13.84	*13.84					*11.66	*11.66	17.25
20			*14.47	*14.47	*13.60	9.96			*11.15	8.7	21.53
15	*23.85	*23.85	*17.40	15.46	*14.67	9.57			*11.43	6.91	24.04
10			*21.63	14.11	15.54	8.99	10.76	6.19	10.52	6.05	25.33
5			23.99	13.01	14.93	8.45	10.49	5.94	10.12	5.73	25.57
0 (GROUND)	*19.54	*19.54	23.37	12.5	14.54	8.11			10.43	5.85	24.81
-5	*32.22	24.93	23.29	12.43	14.44	8.02			11.7	6.55	22.96
-10	*29.78	25.47	*21.81	12.69					15.06	8.43	19.67
-15	*19.96	*19.96							*15.46	15.03	13.96

Unit: 1,000 kg

B (m) \ A (m)	2		3		4		5		6		7		MAX. REACH		A (m)
8					*6.40	*6.40							*5.44	*5.44	4.81
7					*6.33	*6.33	*6.20	*6.20					*5.14	4.86	5.88
6					*6.88	*6.88	*6.46	6.38	*6.20	4.64			*5.06	3.87	6.62
5			*9.64	*9.64	*8.02	*8.02	*7.09	6.16	*6.51	4.52	*5.80	3.44	*5.12	3.3	7.16
4			*13.16	*13.16	*9.67	8.44	*7.99	5.87	*7.02	4.36	5.73	3.35	5.08	2.95	7.51
3					*11.50	7.84	*9.00	5.56	7.23	4.17	5.61	3.25	4.76	2.74	7.73
2					*12.96	7.36	9.48	5.27	7.03	4	5.49	3.14	4.61	2.62	7.80
1					*13.66	7.09	9.23	5.07	6.87	3.86	5.39	3.05	4.6	2.59	7.75
0 (GROUND)			*8.57	*8.57	13.55	6.99	9.09	4.95	6.76	3.77	5.32	2.99	4.73	2.66	7.56
-1	*8.95	*8.95	*12.28	11.62	*13.29	6.97	9.04	4.9	6.72	3.72	5.3	2.96	5.05	2.83	7.23
-2	*12.63	*12.63	*15.52	11.72	*12.48	7.02	9.06	4.92	6.73	3.73			5.64	3.16	6.74
-3	*16.60	*16.60	*13.74	11.9	*11.19	7.14	*9.13	5	6.82	3.81			6.76	3.78	6.03
-4	*13.53	*13.53	*11.17	*11.17	*9.19	7.34	*7.34	5.17					*7.26	5.13	5.03

- LOAD POINT IS THE END OF THE ARM.
- CAPACITIES MARKED WITH AN ASTERISK (*) ARE LIMITED BY HYDRAULIC CAPACITIES.
- LIFT CAPACITIES SHOWN DO NOT EXCEED 75% OF MINIMUM TIPPING LOADS OR 87% OF HYDRAULIC CAPACITIES.

Rating Over Front
 Rating Over Side or 360 degree

DX235LCR

LIFTING CAPACITY

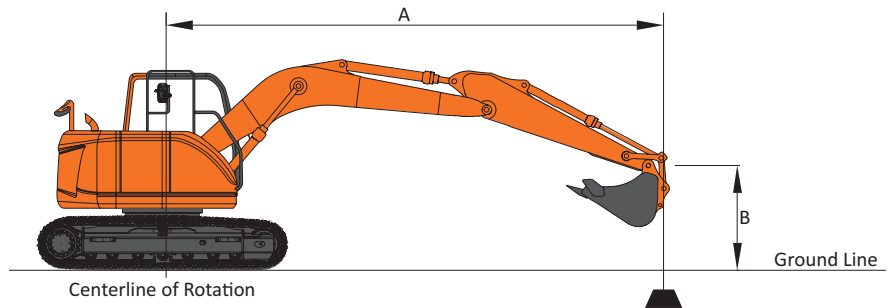
Boom: 18'8" (5,700 mm)

Arm: 9'6" (2,900 mm)

Bucket: SAE 1.20 yd³ (.92 m³)

Shoe: 32" (800 mm)

Counterweight: 7.14 ton (6.48 metric ton)



Feet Unit: 1,000 lb.

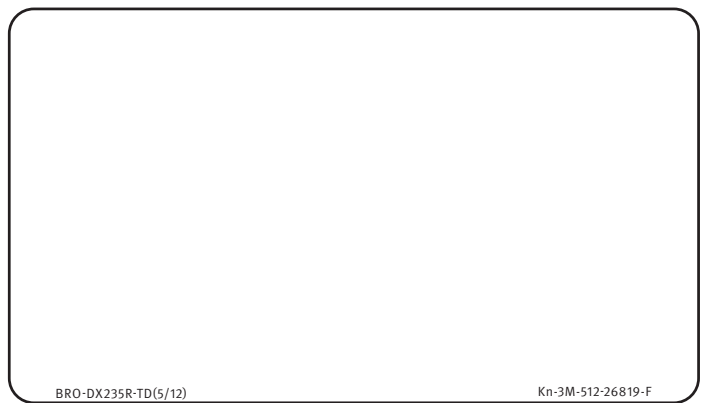
B (ft.) \ A (ft.)	10		15		20		25		MAX. REACH		A (ft.)
25			*11.95	*11.95					*8.50	*8.50	19.29
20			*12.73	*12.73	*12.13	10.12			*8.14	7.66	23.20
15	*19.97	*19.97	*15.63	*15.63	*13.54	9.68	*9.58	6.47	*8.31	6.21	25.53
10	*31.98	27.84	*19.96	14.38	*15.50	9.06	10.77	6.19	*8.91	5.47	26.74
5	*17.46	*17.46	*23.90	13.11	14.95	8.45	10.44	5.89	9.23	5.17	26.98
0 (GROUND)	*21.52	*21.52	23.29	12.41	14.46	8.02	10.19	5.66	9.45	5.24	26.26
-5	*29.95	24.35	23.04	12.2	14.26	7.84			10.43	5.77	24.51
-10	*32.56	24.83	*23.04	12.35	14.37	7.93			12.89	7.16	21.47
-15	*24.18	*24.18	*17.34	12.91					*15.58	11.26	16.39

Unit: 1,000 kg

B (m) \ A (m)	2		3		4		5		6		7		8		MAX. REACH		A (m)
8							*4.77	*4.77							*3.95	*3.95	5.48
7							*5.46	*5.46	*4.66	*4.66					*3.75	*3.75	6.43
6							*5.76	*5.76	*5.61	4.72	*4.06	3.54			*3.69	3.42	7.13
5					*7.02	*7.02	*6.40	6.28	*5.97	4.59	*5.38	3.48			*3.73	2.96	7.62
4	*17.47	*17.47	*11.08	*11.08	*8.62	8.62	*7.31	5.98	*6.51	4.41	5.76	3.37			*3.85	2.66	7.96
3			*15.02	12.91	*10.49	8.05	*8.37	5.64	*7.15	4.21	5.62	3.25	4.49	2.57	*4.05	2.47	8.16
2			*7.98	*7.98	*12.16	7.49	*9.37	5.32	7.05	4.01	5.49	3.13	4.41	2.49	4.21	2.37	8.23
1			*7.79	*7.79	*13.23	7.12	9.25	5.07	6.86	3.85	5.37	3.02	4.34	2.42	4.19	2.34	8.18
0 (GROUND)			*9.50	*9.50	13.49	6.93	9.06	4.91	6.73	3.72	5.28	2.94	4.29	2.38	4.29	2.38	8.00
-1	*8.70	*8.70	*11.88	11.35	13.41	6.86	8.96	4.83	6.65	3.66	5.23	2.89			4.53	2.51	7.69
-2	*11.36	*11.36	*14.82	11.44	*12.92	6.87	8.95	4.81	6.63	3.64	5.22	2.89			4.98	2.76	7.23
-3	*14.30	*14.30	*15.04	11.6	*11.89	6.96	9	4.86	6.68	3.68					5.79	3.22	6.58
-4	*16.51	*16.51	*12.79	11.85	*10.27	7.12	*8.29	4.98							*7.07	4.12	5.68
-5			*9.50	*9.50	*7.65	7.4									*6.96	6.42	4.37

- LOAD POINT IS THE END OF THE ARM.
- CAPACITIES MARKED WITH AN ASTERISK (*) ARE LIMITED BY HYDRAULIC CAPACITIES.
- LIFT CAPACITIES SHOWN DO NOT EXCEED 75% OF MINIMUM TIPPING LOADS OR 87% OF HYDRAULIC CAPACITIES.

Rating Over Front
 Rating Over Side or 360 degree



BRO-DX235R-TD(5/12)

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