

## STANDARD EQUIPMENT

### ISO Standard cabin

All-weather steel cab with 360° visibility  
 Safety glass windows  
 Rise-up type windshield wiper  
 Sliding fold-in front window  
 Sliding side window(LH)  
 Lockable door  
 Hot & cool box  
 Storage compartment & Ashtray  
 Radio & USB player  
 Handsfree mobile phone system with USB  
 Transparent cabin roof-cover  
 12 volt power outlet (24V DC to 12V DC converter)  
 Sun visor

### Cabin ROPS(ISO 12117-2)

ROPS(Roll over protective structure)  
 Computer aided power optimization (New CAPO) system  
 3-power mode, 2-work mode, User mode  
 Auto deceleration & one-touch deceleration system  
 Auto warm-up system  
 Auto overheat prevention system

### Automatic climate control

Air conditioner & heater  
 Defroster

### Self-diagnostics system

### Starting Aid (air grid heater) for cold weather

### Centralized monitoring

LCD display  
 Engine speed or Trip meter/Accel.  
 Clock  
 Gauges  
 Fuel level gauge  
 Engine coolant temperature gauge  
 Hyd. oil temperature gauge  
 Warnings  
 Check engine  
 Overload  
 Communication error  
 Low battery  
 Air cleaner clogging  
 Indicators  
 Max power  
 Low speed/High speed  
 Fuel warmer  
 Auto idle

### Door and cab locks, one key

### Three outside rearview mirrors

### Mechanical suspension seat with heater

### Pilot-operated slidable joystick

### Console box height adjust system

### Four front working lights

### Electric horn

### Batteries (2 x 12V x 100 AH)

### Battery master switch

### Removable clean-out dust net for cooler

### Automatic swing brake

### Removable reservoir tank

### Fuel pre-filter with fuel warmer

### Boom holding system

### Arm holding system

### Track shoes (600mm, 24")

### Track rail guard

### Accumulator for lowering work equipment

### Electric transducer

### Lower frame under cover (Normal)

### Viscous fan clutch

## OPTIONAL EQUIPMENT

### Fuel filler pump (50 L/min)

### Beacon lamp

### Safety lock valve for boom cylinder with overload warning device

### Safety lock valve for arm cylinder

### Single-acting piping kit (breaker, etc.)

### Double-acting piping kit (clamshell, etc.)

### Quick coupler

### Travel alarm

### Boom

5.68 m, 18' 8"

### Arms

2.00 m, 6' 7"

2.40 m, 7' 10"

2.92 m, 9' 7"

### Cabin lights

### Cabin front window rain guard

### Track shoes

700mm, 28"

800mm, 32"

900mm, 36"

### Lower frame under cover (Additional)

### Long crawler lower frame

### Long crawler & Front dozer lower frame

### Tool kit

### Rearview camera

### Pattern change valve (2 patterns)

### Hi-mate (Remote Management System)

### Cabin FOPS/FOG (ISO/DIS 10262)-Level II

### FOPS (Falling Object Protective Structure)

### FOG (Falling Object Guard)

- \* Standard and optional equipment may vary. Contact your Hyundai dealer for more information. The machine may vary according to International standards.
- \* The photos may include attachments and optional equipment that are not available in your area.
- \* Materials and specifications are subject to change without advance notice.
- \* All imperial measurements rounded off to the nearest pound or inch.

PLEASE CONTACT

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Robex

# 235LCR-9A

With Tier 4 Interim Engine installed

HYUNDAI HEAVY INDUSTRIES

MOVING YOU FURTHER



\*Photo may include optional equipment.

**HYUNDAI**  
 HEAVY INDUSTRIES CO.,LTD.

# PRIDE AT WORK

Hyundai Heavy Industries strives to build state-of-the-art earthmoving equipment to give every operator maximum performance, more precision, versatile machine preferences, and proven quality.

*Take pride in your work with Hyundai!*

## Robex 235LCR-9A

### Machine Walk-Around

#### Engine Technology

Proven, reliable, fuel efficient, low emission and low noise  
Cummins Tier 4 interim & EU stage III B engine

#### Hydraulic System Improvements

New patented hydraulic control for improved controllability / Improved control valve design for added efficiency and smoother operation / New auto boom and swing priority system for optimum speed / New auto power boost feature for additional power when needed / Improved arm-in and boom-down flow regeneration system for added speed and efficiency

#### Pump Compartment

Industry-leading, powerful, reliable Kawasaki designed, variable volume in-line axial piston pumps  
New compact solenoid block equipped with 4 solenoid valves, 1 EPPR valve, 1 check valve accumulator and pilot filter - controls 2 speed travel, power boost, boom priority, safety lock, arm regeneration

#### Enhanced Operator Cab

##### Improved Visibility

Enlarged cab with improved visibility / See-through upper skylight for visibility and ventilation  
Larger right-side glass, now one piece, for better right visibility  
Safety glass windows on all sides - less expensive than (polycarbonate) and won't scratch or fade  
Closeable sunshade for operator convenience / Reduced front window seam for improved operator view

##### Improved Cab Construction

New steel tube construction for added operator safety, protection and durability  
New window open/close mechanism designed with cable and spring lift assist and single latch release

##### Improved Suspension Seat / Console Assembly

Ergonomic joysticks with auxiliary control buttons for attachment use. Now with new sleek styling  
Heated suspension (standard)

##### Advanced 7" Color Cluster with Touch Screen

New Color LCD Display with easy to read digital gauges for hydraulic oil temperature, water temperature, and fuel. Simplified design makes adjustment and diagnostics easier. Also, new enhanced features such as rear-view camera are integrated into monitor.

3 power modes : (P) Power, (S) Standard, (E) Economy, 2 work modes : Dig & Attachment, (U) User mode for operator preference

Enhanced self-diagnostic features with GPS download capability

One pump flow or two pump flow for optional attachment is now selectable through the cluster /

New anti-theft system with password capability

Boom speed and arm regeneration are selectable through the monitor.

Auto power boost is now available - selectable (on/off) through the monitor.

Powerful air conditioning and heat with auto climate control

RMS (Remote Management System) works through GPS/satellite technology to ultimately provide better customer service and support.

#### Undercarriage

Sealed track chain (urethane seals) / Standard track rail guard / Comfortable bolt-on steps

Large upper roller cut-outs for debris clean-out / Tapered side frames for debris clean-out / Grease-type track tensioner



\*Photo may include optional equipment.

# PRECISION

Innovative hydraulic system technologies make the 9A series excavator fast, smooth and easy to control.



\*Photo may include optional equipment.

## Computer Aided Power

The engine horsepower and hydraulic horsepower together in unison through the advanced CAPO(Computer Aided Power Optimization) system, flow for the job at hand. Operator can set their own preferences for boom or swing priority, power mode selection and optional work tools at the touch of a button.

The CAPO system also provides complete self diagnostic features and digital gauges for important information like hydraulic oil temperature, water temperatures and fuel level. This system interfaces with multiple sensors placed throughout the hydraulic system as well as the electronically controlled engine to provide the optimum level of engine power and hydraulic flow.

### Power Mode

P (Power Max) mode maximizes machine speed and power for mass production. S (Standard) mode provides a reduced, fixed rpm for optimum performance and improved fuel economy. For maximum fuel savings and improved control, E (Economy) mode provides precise flow and engine power based on load demand. Three unique power modes provide the operator with custom power, speed and fuel economy.

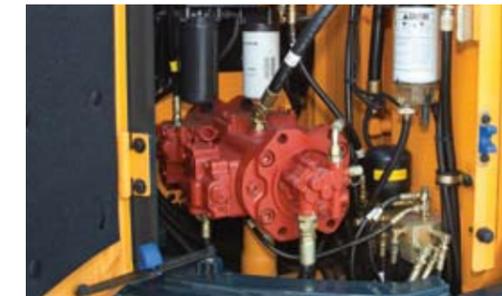
### Work Mode

The work mode allows the operator to select single flow attachments like a hydraulic breaker or bi-directional flow attachments like a crusher. Flow settings unique to each attachment can be programmed from within the cluster.

### User Mode

Some jobs require more precise machine settings. Using the versatile U (User) mode, the operator can customize engine speed, pump output, idle speed and other machine settings for the job at hand.

## Improved Hydraulic System



To achieve optimum precision, Hyundai redesigned the hydraulic system to provide the operator with super fine touch and improved controllability. Improved pump flow control reduces flow when controls are not being used to minimize fuel consumption.

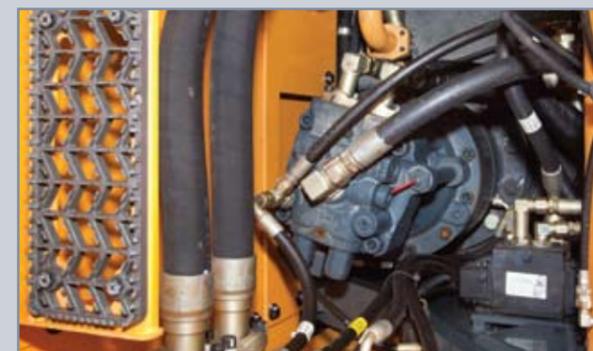
Improved spool valves in the control valve are engineered to provide more precise flow to each function with less effort.

Improved hydraulic valves, precision-designed variable volume piston pumps, fine-touch pilot controls, and enhanced travel functions make any operator running a 9A series look like a smooth operator. Newly improved features

include arm-in and boom-down flow regeneration, improved control valve technology and innovative auto boom and swing priority for optimal performance in any application.

## Auto Boom-swing Priority

This smart function automatically and continuously looks the ideal hydraulic flow balance for the boom and swing motions of the machine. The advanced CAPO system monitors the hydraulic system and adjusts its settings to maximize performance and productivity.



# PERFORMANCE

9A series is designed for maximum performance to keep the operator working productively.



\*Photo may include optional equipment.

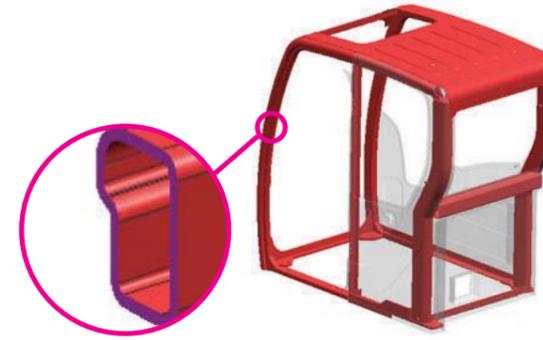
## Track Rail Guard & Adjusters

Durable track rail guards keep track links in place. Track adjustment is made easy with standard grease cylinder track adjusters and shock absorbing springs.



## Eco-friendly Cummins QSB 6.7 Engine

The CUMMINS QSB6.7 engine combines advanced electronic controls and a self-diagnostic system with reliable performance. The combination of a high pressure common rail system and an advanced in-cylinder combustion technology results in increased power, improved transient response and reduced fuel consumption. The QSB6.7 Cummins engine complies with current emissions standards including EPA Tier4 Interim and EU Stage III-B.



## Structure Strength

The 9A series cabin structure has been fitted with stronger but slimmer tubing for more safety and improved visibility. Low-stress, high strength steel is integrally welded to form a stronger, more durable upper and lower frame. Structural integrity was tested by way of FEM (Finite Elements Method) analysis and long-term durability tests. The ROPS(Roll Over Protective Structure) cab can be equipped to enhance operator safety.

## The Definition of Progress

The Quantum System B Series 6.7-liter engine combines full authority electronic controls with the reliable performance. The electronics with the QSB6.7 have been proven with our high-horse power products-working in the harshest, most demanding environments-search as dusty, non-stop mining operations while meeting emissions regulations worldwide.

The QSB6.7 features 24 valve designed with centered injectors and symmetrical piston bowl. The combination of improved air flow and evenly dispersed fuel results in increased power, improved transient response and reduced fuel consumption.



# PREFERENCE

Operating a 9A series is unique to every operator. Operators can fully customize their work environment and operating preferences to fit their individual needs.



\*Photo may include optional equipment.



## Wide Cabin with Excellent Visibility

The newly designed cabin was conceived for more space, a wider field of view and operator comfort. Special attention was given to a clear, open and convenient interior with plenty of visibility on the machine surroundings and the job at hand. This well balanced combination of precision aspects put the operator in the perfect position to work safely and securely.

## Operator Comfort

In the 9A series cabin you can easily adjust the seat, console and armrest settings to best suit your personal operating preferences. Seat and console position can be set together and independent from each other. Additional creature comforts include the fully automatic high-capacity airconditioning system and the radio / USB player.



## Reduced Stress

Work is stressful enough. Your work environment should be stress free. Hyundai's 9A series provides improved cab amenities, additional space and a comfortable seat to minimize stress to the operator. A powerful climate control system provides the operator with optimum air temperature. An advanced audio system with USB player, AM/FM stereo and MP3 capabilities, plus remotely located controls is perfect for listening to music favorites.

Operators can even talk on the phone with the hands-free cell phone feature. Also, the newly designed optional remote control offers mobile bluetooth-handsfree and radio cable-handsfree function.



## Smart Key System (Option)

9A series excavators provide smart key system as an option. This allows the operator to start the engine by the push of a starter button without inserting a key in the ignition.



## Operator - Friendly Cluster

The advanced new cluster with 7 inch wide color LCD with touch screen and toggle switch allows the operator to select his personal machine preferences. Power and work mode selection, self diagnostics, optional rear-view camera, maintenance check lists, start-up machine security, and video functions were integrated into the cluster to make the machine more versatile and the operator more productive.

The newly applied FM transmitter application transmits signal to USB & Radio player with the same frequency as cluster. The player outputs the audio through the internal speaker in the cab. The video & firmware updates are possible with USB host support and an adjustable cluster hinge bracket improves cluster visibility.

## Monitor Tilt Range



Horizontal  
Total : 15°



Vertical  
Total : 30°



# PROFITABILITY

9A series is designed to maximize profitability through improved efficiencies, enhanced service features and longer life components.



\*Photo may include optional equipment.

## Fuel Efficiency

9A series excavators are engineered to be extremely fuel efficient. New innovations like two-stage auto decel system and the new economy mode help to conserve fuel and reduce the impact on the environment.



## Hi-mate (Remote Management System)

Hi-mate, Hyundai's proprietary remote management system, provides operators and dealer service personnel access to vital service and diagnostic information on the machine from any computer with internet access. Users can pinpoint machine location using digital mapping and set machine work boundaries, reducing the need for multiple service calls. Hi-mate saves time and money for the owner and dealer by promoting preventative maintenance and reducing machine downtime.



## Easy Access

Ground-line access to filters, lube fittings, fuses, machine computer components and wide open compartments makes service more convenient on the 9A series.



## Long-Life Components

9A series excavators were designed with bushings designed for long-life lube intervals (250 hrs) & polymer shims (wear resistant, noise reducing), long-life hydraulic filters (1,000hrs), long-life hydraulic oil (5,000hrs), more efficient cooling systems and integrated preheating systems which extend service intervals, minimize operating costs and reduce machine down time.

# Specifications

## ENGINE

MODEL	CUMMINS QSB6.7 Engine		
Type	Water cooled, 4 cycle Diesel, 6-cylinders in line, direct injection, turbocharged charger and air cooled		
Rated flywheel horse power	SAE	J1995 (gross) J1349 (net)	167HP (124kW)/ 1,950 rpm 157HP (117kW)/ 1,950 rpm
	DIN	6271/1 (gross) 6271/1 (net)	169PS (124kW)/ 1,950 rpm 159PS (117kW)/ 1,950 rpm
Max. torque	74.7kgf·m (540lbf·ft)/1,500rpm		
Bore X stroke	107mm X 124mm (4.2" X 4.9")		
Piston displacement	6,700cc (409 in <sup>3</sup> )		
Batteries	2 X 12V X 100AH		
Starting motor	24V, 4.8kW		
Alternator	24V, 95Amp		

## HYDRAULIC SYSTEM

MAIN PUMP	
Type	Variable displacement tandem axis piston pumps
Rated flow	2 X 228.2 L/min (60.3 US gpm/50.2 UK gpm)
Sub-pump for pilot circuit	Gear pump
Cross-sensing and fuel saving pump system.	

## HYDRAULIC MOTORS

Travel	Two speed axial pistons motor with brake valve and parking brake
Swing	Axial piston motor with automatic brake

## RELIEF VALVE SETTING

Implement circuits	350 kgf/cm <sup>2</sup> (4,980 psi)
Travel	350 kgf/cm <sup>2</sup> (4,980 psi)
Power boost (boom, arm, bucket)	380 kgf/cm <sup>2</sup> (5,410 psi)
Swing circuit	285 kgf/cm <sup>2</sup> (4,050 psi)
Pilot circuit	40 kgf/cm <sup>2</sup> (570 psi)
Service valve	Installed

## HYDRAULIC CYLINDERS

No. of cylinder bore X stroke	Boom: 2-120 X 1,290 mm (4.7" X 50.8")
	Arm: 1-140 X 1,510 mm (5.5" X 59.4")
	Bucket: 1-120 X 1,055 mm (4.7" X 41.5")

## DRIVES & BRAKES

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor, in-shoe design
Reduction system	Planetary reduction gear
Max. drawbar pull	21,400 kgf (47,180 lbf)
Max. travel speed(high) / (low)	5.8 km/hr (3.6mph) / 3.4 km/hr (2.1mph)
Gradeability	30° (58 %)
Parking brake	Multi wet disc

## CONTROL

Pilot pressure operated joysticks and pedals with detachable lever provide almost effortless and fatigueless operation.

Pilot control	Two joysticks with one safety lever (LH): Swing and arm, (RH): Boom and bucket(ISO)
Traveling and steering	Two levers with pedals
Engine throttle	Electric, Dial type

## SWING SYSTEM

Swing motor	Fixed displacement axial piston motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Multi wet disc
Swing speed	10.7 rpm

## COOLANT & LUBRICANT CAPACITY

Refilling	liter	US gal	UK gal
Fuel tank	320	84.5	70.4
Engine coolant	38	10	8.4
Engine oil	23.7	6.3	5.2
Swing device-gear oil	6.2	1.6	1.4
Final drive(each)-gear oil	6	1.6	1.3
Hydraulic system(including tank)	275	72.6	60.5
Hydraulic tank	160	42.3	35.2

## UNDERCARRIAGE

The X-leg type center frame is integrally welded with reinforced box-section track frames. The undercarriage includes lubricated rollers, idlers, track adjusters with shock absorbing springs and sprockets, and a track chain with double or triple grouser shoes.

Center frame	X - leg type
Track frame	Pentagonal box type
No. of shoes on each side	49 EA
No. of carrier roller on each side	2 EA
No. of track roller on each side	9 EA
No. of rail guard on each side	2 EA

## OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 5,680mm (18' 8") boom, 2,920mm (9' 7") arm, SAE heaped 0.80m<sup>3</sup> (1.05 yd<sup>3</sup>) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, and all standard equipments.

## MAJOR COMPONENT WEIGHT

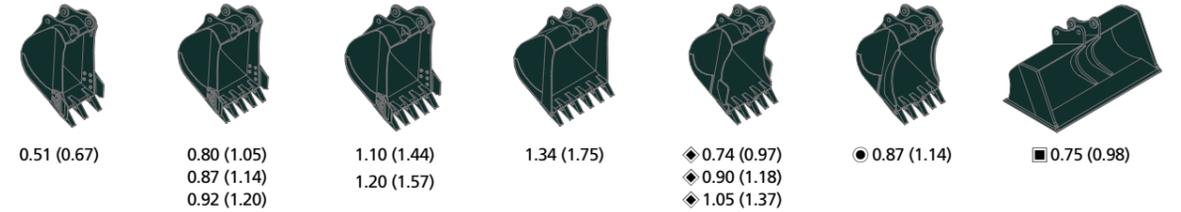
Upperstructure	5,600 kg (12,350 lb)
Boom(with arm cylinder)	1,950 kg (4,300 lb)
Arm(with bucket cylinder)	1,095 kg (2,410 lb)

## OPERATING WEIGHT

Shoes		Operating weight	Ground pressure
Type	Width mm(in)	kg(lb)	kgf/cm <sup>2</sup> (psi)
Triple grouser	600 (24")	23,800 (52,470)	0.51 (7.25)
	700 (28")	24,060 (53,040)	0.44 (6.26)
	800 (32")	24,320 (53,620)	0.39 (5.55)
	900 (36")	24,580 (54,190)	0.35 (4.98)

## BUCKETS

All buckets are welded with high-strength steel.



Capacity m <sup>3</sup> (yd <sup>3</sup> )		Width mm (in)		Weight kg (lb)	Recommendation mm (ft-in)		
SAE heaped	CECE heaped	Without side cutters	With side cutters		5,680 (18' 8") Boom		
				2,000 (6' 7") Arm		2,400 (7' 10") Arm	2,920 (9' 7") Arm
0.51 (0.67)	0.45 (0.59)	700 (27.6)	820 (32.3)	570 (1,260)	●	●	●
0.80 (1.05)	0.70 (0.92)	1,000 (39.4)	1,120 (44.1)	700 (1,540)	●	●	●
0.87 (1.14)	0.75 (0.98)	1,090 (42.9)	1,210 (47.6)	740 (1,630)	●	●	■
0.92 (1.20)	0.80 (1.05)	1,150 (45.3)	1,270 (50.0)	770 (1,700)	●	●	■
1.10 (1.44)	0.96 (1.26)	1,320 (52.0)	1,440 (56.7)	830 (1,830)	●	■	▲
1.20 (1.57)	1.00 (1.31)	1,400 (55.1)	1,520 (59.8)	850 (1,870)	■	▲	—
1.34 (1.75)	1.15 (1.50)	1,550 (61.0)	1,670 (65.7)	920 (2,030)	▲	▲	—
◆ 0.74 (0.97)	0.65 (0.85)	985 (38.8)	-	770 (1,700)	●	●	●
◆ 0.90 (1.18)	0.80 (1.05)	1,070 (42.1)	-	810 (1,790)	●	●	■
◆ 1.05 (1.37)	0.92 (1.20)	1,290 (50.8)	-	890 (1,960)	●	■	▲
● 0.87 (1.14)	0.75 (0.98)	1,140 (44.9)	-	900 (1,980)	●	●	■
■ 0.75 (0.98)	0.65 (0.85)	1,790 (70.5)	-	880 (1,940)	●	●	■

◆ Heavy duty bucket

■ Slope finishing bucket

● : Applicable for materials with density of 2,000 kg /m<sup>3</sup> (3,370 lb/ yd<sup>3</sup>) or less

● Rock-Heavy duty bucket

■ : Applicable for materials with density of 1,600 kg /m<sup>3</sup> (2,700 lb/ yd<sup>3</sup>) or less

▲ : Applicable for materials with density of 1,100 kg /m<sup>3</sup> (1,850 lb/ yd<sup>3</sup>) or less

## ATTACHMENT

Booms and arms are welded with a low-stress, full-box section design. 5.68m Boom and 2.0m, 2.4m, 2.92m Arms are available.

## DIGGING FORCE

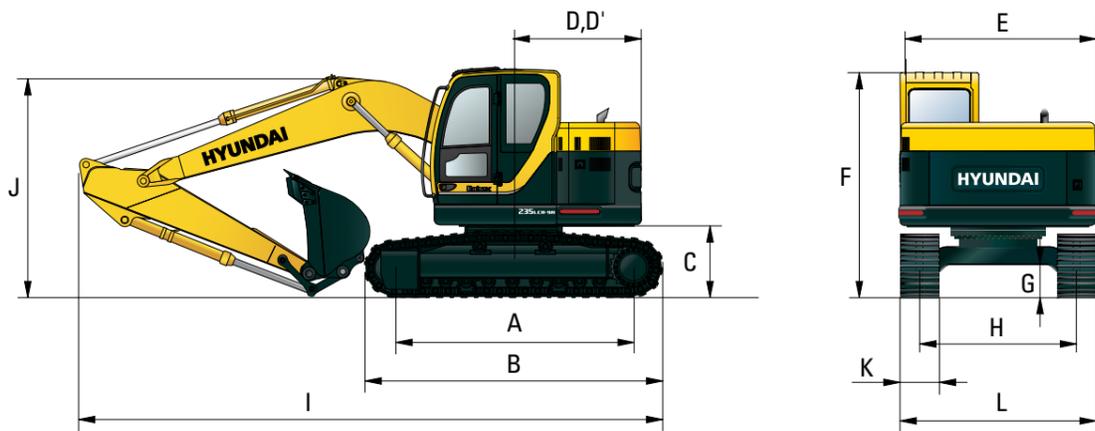
Boom	Length	mm (ft-in)	5,680 (18' 8")			Remarks
	Weight	kg (lb)	1,950 (4,300)			
Arm	Length	mm (ft-in)	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")	[ ]: Power Boost
	Weight	kg (lb)	975 (2,150)	1,045 (2,300)	1,095 (2,410)	
Bucket digging force	SAE	kN	133.4 [144.8]	133.4 [144.8]	133.4 [144.8]	
		kgf	13600 [14770]	13600 [14770]	13600 [14770]	
		lbf	29980 [32550]	29980 [32550]	29980 [32550]	
	ISO	kN	152.0 [165.0]	152.0 [165.0]	152.0 [165.0]	
		kgf	15500 [16830]	15500 [16830]	15500 [16830]	
		lbf	34170 [37100]	34170 [37100]	34170 [37100]	
Arm crowd force	SAE	kN	144.2 [156.5]	119.6 [129.9]	102.0 [110.7]	
		kgf	14700 [15960]	12200 [13250]	10400 [11290]	
		lbf	32410 [35190]	26900 [29210]	22930 [24900]	
	ISO	kN	151.0 [164.0]	125.5 [136.3]	106.9 [116.1]	
		kgf	15400 [16720]	12800 [13900]	10900 [11830]	
		lbf	33950 [36860]	28220 [30640]	24030 [26090]	

Note: Boom weight includes arm cylinder, piping, and pin

Arm weight includes bucket cylinder, linkage, and pin

# Dimensions & Working Range

## R235LCR-9A DIMENSIONS

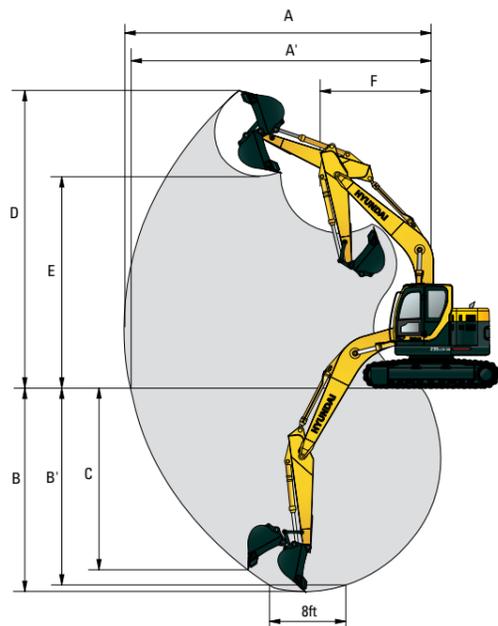


mm (ft-in)

A Tumbler distance	3,650 (11' 12")	Boom length	5,680 (18' 8")			
B Overall length of crawler	4,440 (14' 7")	Arm length	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")	
C Ground clearance of counterweight	1,060 (3' 6")	I Overall length	9,040 (29' 8")	8,950 (29' 4")	8,910 (29' 3")	
D Tail swing radius	1,780 (6' 04")	J Overall height of boom	3,200 (10' 6")	3,100 (10' 2")	3,020 (9' 11")	
D' Rear-end length	1,780 (6' 04")	K Track shoe width	600 (24")	700 (28")	800 (32")	900 (36")
E Overall width of upperstructure	2,980 (9' 9")	L Overall width	2,990 (9' 10")	3,090 (10' 2")	3,190 (10' 6")	3,290 (10' 10")
F Overall height of cab	2,950 (9' 8")					
G Min. ground clearance	480 (1' 7")					
H Track gauge	2,390 (7' 10")					

## R235LCR-9A WORKING RANGE

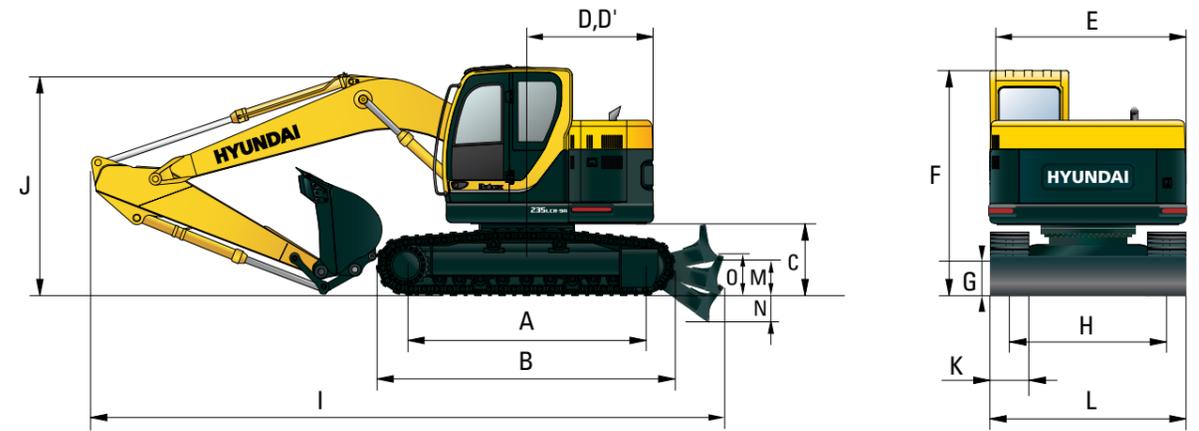
mm (ft-in)



Boom length	5,680 (18' 8")		
Arm length	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")
A Max. digging reach	9,040 (29' 8")	9,430 (30' 11")	9,910 (32' 6")
A' Max. digging reach on ground	8,860 (29' 1")	9,260 (30' 5")	9,750 (31' 12")
B Max. digging depth	5,780 (18' 12")	6,180 (20' 3")	6,700 (21' 12")
B' Max. digging depth (8' level)	5,550 (18' 3")	5,980 (19' 7")	6,530 (21' 5")
C Max. vertical wall digging depth	5,140 (16' 10")	5,710 (18' 9")	6,270 (20' 7")
D Max. digging height	10,090 (33' 1")	10,420 (34' 2")	10,830 (35' 6")
E Max. dumping height	7,190 (23' 7")	7,510 (24' 8")	7,890 (25' 11")
F Min. swing radius	2,860 (9' 5")	2,550 (8' 4")	2,350 (7' 9")

# Dimensions & Working Range

## R235LCR-9A (DOZER TYPE) DIMENSIONS

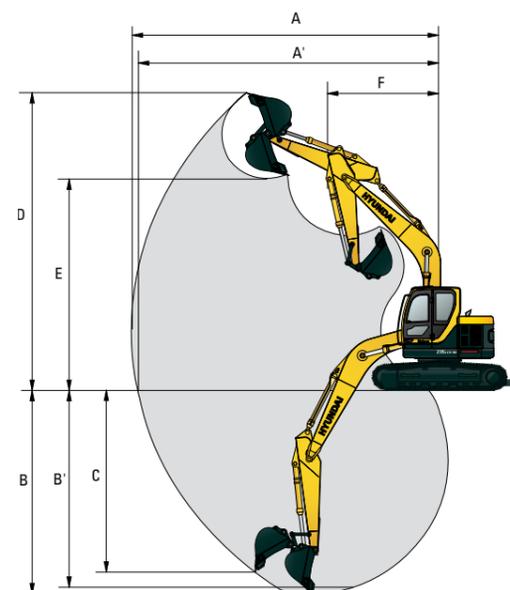


mm (ft-in)

A Tumbler distance	3,650 (11' 12")	Boom length	5,680 (18' 8")			
B Overall length of crawler	4,440 (14' 7")	Arm length	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")	
C Ground clearance of counterweight	1,060 (3' 6")	I Overall length	10,020 (32' 10")	9,930 (32' 7")	9,890 (32' 5")	
D Tail swing radius	1,780 (6' 04")	J Overall height of boom	3,200 (10' 6")	3,100 (10' 2")	3,020 (9' 11")	
D' Rear-end length	1,780 (6' 04")	K Track shoe width	600 (24")	700 (28")	800 (32")	900 (36")
E Overall width of upperstructure	2,980 (9' 9")	L Overall width	2,990 (9' 10")	3,090 (10' 2")	3,190 (10' 6")	3,290 (10' 10")
F Overall height of cab	2,950 (9' 8")					
G Min. ground clearance	480 (1' 7")					
H Track gauge	2,390 (7' 10")					
M Ground clearance of blade up	575 (1' 11")					
N Depth of blade down	390 (1' 3")					
O Height of blade	710 (2' 4")					

## R235LCR-9A (DOZER TYPE) WORKING RANGE

mm (ft-in)



Boom length	5,680 (18' 8")		
Arm length	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")
A Max. digging reach	9,040 (29' 8")	9,430 (30' 11")	9,910 (32' 6")
A' Max. digging reach on ground	8,860 (29' 1")	9,260 (30' 5")	9,750 (31' 12")
B Max. digging depth	5,780 (18' 12")	6,180 (20' 3")	6,700 (21' 12")
B' Max. digging depth (8' level)	5,550 (18' 3")	5,980 (19' 7")	6,530 (21' 5")
C Max. vertical wall digging depth	5,140 (16' 10")	5,710 (18' 9")	6,270 (20' 7")
D Max. digging height	10,090 (33' 1")	10,420 (34' 2")	10,830 (35' 6")
E Max. dumping height	7,190 (23' 7")	7,510 (24' 8")	7,890 (25' 11")
F Min. swing radius	2,860 (9' 5")	2,550 (8' 4")	2,350 (7' 9")

# Lifting Capacity

## R235LCR-9A

Rating over-front Rating over-side or 360 degree

Boom : 5.68 m (18' 8") / Arm : 2.0 m (6' 7") / Bucket : 0.80 m<sup>3</sup> (1.05yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser

Load point height m (ft)		Load radius								At max. reach		
		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		7.5 m (25 ft)		Capacity		Reach m (ft)
10.5 m (35 ft)	kg									*4210	*4210	4.63
	lb									*9280	*9280	(15.2)
9.0 m (30 ft)	kg									*4630	*4630	4.48
	lb									*10210	*10210	(14.7)
7.5 m (25 ft)	kg			*4820	*4820					*4150	*4150	6.56
	lb			*10630	*10630					*9150	*9150	(21.5)
6.0 m (20 ft)	kg			*4980	*4980	*4590	*4590			*4050	3060	7.70
	lb			*10980	*10980	*10120	*10120			*8930	6750	(25.3)
4.5 m (15 ft)	kg	*8350	*8350	*5930	*5930	*4910	4570			*4050	2560	8.36
	lb	*18410	*18410	*13070	*13070	*10820	10080			*8930	5640	(27.4)
3.0 m (10 ft)	kg			*7310	*7310	*4620	2960			*4080	2320	8.67
	lb			*16120	14900	*12100	9500	*10190	6530	*8990	5110	(28.4)
1.5 m (5 ft)	kg			*8410	6250	*6040	4070	*4820	2860	*4130	2270	8.66
	lb			*18540	13780	*13320	8970	*10630	6310	*9110	5000	(28.4)
Ground	kg			*8720	6020	*6300	3910			*4150	2390	8.36
	lb			*19220	13270	*13890	8620			*9150	5270	(27.4)
Line	kg											
	lb											
-1.5 m (-5 ft)	kg	*11480	*11480	*8320	5980	*6110	3860			*4070	2760	7.69
	lb	*25310	*25310	*18340	13180	*13470	8510			*8970	6080	(25.2)
-3.0 m (-10 ft)	kg	*9710	*9710	*7190	6090	*5140	3950			*3660	3660	6.55
	lb	*21410	*21410	*15850	13430	*11330	8710			*8070	8070	(21.5)

Boom : 5.68 m (18' 8") / Arm : 2.40 m (7' 10") / Bucket : 0.80 m<sup>3</sup> (1.05 yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser

Load point height m (ft)		Load radius								At max. reach				
		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)		Capacity		Reach m (ft)
9.0 m (30 ft)	kg											*4110	*4110	5.25
	lb											*9060	*9060	(17.2)
7.5 m (25 ft)	kg					*4280	*4280					*3820	3670	7.07
	lb					*9440	*9440					*8420	8090	(23.2)
6.0 m (20 ft)	kg					*4500	*4500	*4220	*4220			*3760	2780	8.12
	lb					*9920	*9920	*9300	*9300			*8290	6130	(26.6)
4.5 m (15 ft)	kg			*7270	*7270	*5450	*5450	*4600	*4600	*3950	3080	*3770	2350	8.74
	lb			*16030	*16030	*12020	*12020	*10140	*10140	*8710	6790	*8310	5180	(28.7)
3.0 m (10 ft)	kg			*11380	*11380	*6850	*5230	4350	4350	*4420	2980	*3820	2150	9.04
	lb			*25090	*25090	*15100	*15100	*11530	9590	*9740	6570	*8420	4740	(29.7)
1.5 m (5 ft)	kg					*8100	6310	*5840	4080	*4690	2850	3850	2090	9.03
	lb					*17860	13910	*12870	8990	*10340	6280	8490	4610	(29.6)
Ground	kg			*9120	*9120	*8640	6000	*6210	3890	*4820	2750	*3930	2190	8.74
	lb			*20110	*20110	*19050	13230	*13690	8580	*10630	6060	*8660	4830	(28.7)
Line	kg													
	lb													
-1.5 m (-5 ft)	kg	*9720	*9720	*12220	11860	*8450	5920	*6160	3810	*3900	2490	*3900	2490	8.12
	lb	*21430	*21430	*26940	26150	*18630	13050	*13580	8400	*8600	5490	*8600	5490	(26.6)
-3.0 m (-10 ft)	kg	*14180	*14180	*10550	*10550	*7550	5990	*5480	3850	*3650	3190	*3650	3190	7.06
	lb	*31260	*31260	*23260	*23260	*16640	13210	*12080	8490	*8050	7030	*8050	7030	(23.2)
-4.5 m (-15 ft)	kg			*7670	*7670	*5530	*5530							
	lb			*16910	*16910	*12190	*12190							

Boom : 5.68 m (18' 8") / Arm : 2.92 m (9' 7") / Bucket : 0.80 m<sup>3</sup> (1.05 yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser

Load point height m (ft)		Load radius								At max. reach				
		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)		Capacity		Reach m (ft)
9.0 m (30 ft)	kg					*2970	*2970					*3630	*3630	6.12
	lb					*6550	*6550					*8000	*8000	(20.1)
7.5 m (25 ft)	kg							*3310	*3310			*3460	3180	7.70
	lb							*7300	*7300			*7630	7010	(25.3)
6.0 m (20 ft)	kg							*3780	*3780			*3430	2480	8.66
	lb							*8330	*8330			*7560	5470	(28.4)
4.5 m (15 ft)	kg					*4810	*4810	*4190	*4190	*3860	3140	*3460	2120	9.24
	lb					*10600	*10600	*9240	*9240	*8510	6920	*7630	4670	(30.3)
3.0 m (10 ft)	kg			*9730	*9730	*6240	*4860	4410	4410	*4150	3000	*3520	1940	9.52
	lb			*21450	*21450	*13760	*13760	*10710	9720	*9150	6610	*7760	4280	(31.2)
1.5 m (5 ft)	kg			*9500	*9500	*7650	6410	*5560	4110	*4490	2850	3520	1890	9.52
	lb			*20940	*20940	*16870	14130	*12260	9060	*9900	6280	7760	4170	(31.2)
Ground	kg			*9890	*9890	*8460	6010	*6050	3880	*4720	2730	*3650	1960	9.24
	lb			*21800	*21800	*18650	13250	*13340	8550	*10410	6020	*8050	4320	(30.3)
Line	kg													
	lb													
-1.5 m (-5 ft)	kg	*8800	*8800	*12860	11680	*8530	5850	*6160	3760	*4690	2660	*3670	2190	8.66
	lb	*19400	*19400	*28350	25750	*18810	12900	*13580	8290	*10340	5860	*8090	4830	(28.4)
-3.0 m (-10 ft)	kg	*12230	*12230	*11440	*11440	*7900	5870	*5740	3750			*3560	2720	7.69
	lb	*26960	*26960	*25220	*25220	*17420	12940	*12650	8270			*7850	6000	(25.2)
-4.5 m (-15 ft)	kg			*8990	*8990	*6360	6050					*2980	*2980	6.11
	lb			*19820	*19820	*14020	13340					*6570	*6570	(20.0)

- Lifting capacity is based on SAE J1097, ISO 10567.
- Lifting capacity of the Robex Series does not exceed 75% of the tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The load point is a hook located on the back of the bucket.
- (\*) indicates the load limited by hydraulic capacity.

# Lifting Capacity

## R235LCR-9A (DOZER TYPE)

Rating over-front Rating over-side or 360 degree

Boom : 5.68 m (18' 8") / Arm : 2.0 m (6' 7") / Bucket : 0.80 m<sup>3</sup> (1.05yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser, Dozer blade Down

Load point height m (ft)		Load radius								At max. reach				
		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		7.5 m (25 ft)		Capacity		Reach m (ft)		
10.5 m (35 ft)	kg											*4210	*4210	4.63
	lb											*9280	*9280	(15.2)
9.0 m (30 ft)	kg											*4630	*4630	4.48
	lb											*10210	*10210	(14.7)
7.5 m (25 ft)	kg											*4150	*4150	6.56
	lb											*9150	*9150	(21.5)
6.0 m (20 ft)	kg											*4050	3460	7.70
	lb											*8930	7630	(25.3)
4.5 m (15 ft)	kg	*8350	*8350	*5930	*5930	*4910	4570			*4050	2920	*4910	2920	8.36
	lb	*18410	*18410	*13070	*13070	*10820	10080			*8930	6440	*10820	6440	(27.4)
3.0 m (10 ft)	kg			*7310	*7310	*4620	2960			*4080	2670	*4080	2670	8.67
	lb			*16120	14900	*12100	9500	*10190	6530	*8990	5890	*8990	5890	(28.4)
1.5 m (5 ft)	kg			*8410	6250	*6040	4070	*4820	2860	*4130	2270	*4130	2270	8.66
	lb			*18540	13780	*13320	8970	*10630	6310	*9110	5000	*9110	5000	(28.4)
Ground	kg			*8720	6020	*6300	3910			*4150	2390	*4150	2390	8.36
	lb			*19220	13270	*13890	8620			*9150	5270	*9150	5270	(27.4)
Line	kg													
	lb													
-1.5 m (-5 ft)	kg	*11480	*11480	*8320	5980	*6110	3860			*4070	2760	*4070	2760	7.69
	lb	*25310	*25310	*18340	13180	*13470	8510			*8970	6080	*8970	6080	(25.2)
-3.0 m (-10 ft)	kg	*9710	*9710	*7190	6090	*5140	3950			*3660	3660	*3660	3660	6.55
	lb	*21410	*21410	*15850	13430	*11330	8710			*8070	8070	*8070	8070	(21.5)

Boom : 5.68 m (18' 8") / Arm : 2.0 m (6' 7") / Bucket : 0.80 m<sup>3</sup> (1.05yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser, Dozer blade Up

Load point height m (ft)		Load radius								At max. reach		
		3.0 m (10 ft)		4.5 m (15 ft)		6.0 m (20 ft)		7.5 m (25 ft)		Capacity		Reach m (ft)

# Lifting Capacity

## R235LCR-9A (DOZER TYPE)

Rating over-front Rating over-side or 360 degree

Boom : 5.68 m (18' 8") / Arm : 2.40 m (7' 10") / Bucket : 0.80 m<sup>3</sup> (1.05 yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser, Dozer blade Down

Load point height m (ft)		Load radius										At max. reach		
		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)		Capacity		Reach
														m (ft)
9.0 m (30 ft)	kg											*4110	*4110	5.25
	lb											*9060	*9060	(17.2)
7.5 m (25 ft)	kg					*4280	*4280					*3820	*3820	7.07
	lb					*9440	*9440					*8420	*8420	(23.2)
6.0 m (20 ft)	kg					*4500	*4500	*4220	*4220			*3760	3160	8.12
	lb					*9920	*9920	*9300	*9300			*8290	6970	(26.6)
4.5 m (15 ft)	kg			*7270	*7270	*5450	*5450	*4600	*4600	*3950	3510	*3770	2700	8.74
	lb			*16030	*16030	*12020	*12020	*10140	*10140	*8710	7740	*8310	5950	(28.7)
3.0 m (10 ft)	kg			*11380	*11380	*6850	*5230	4920	*4420	3400	*3820	2480		9.04
	lb			*25090	*25090	*15100	*15100	10850	*9740	7500	*8420	5470		(29.7)
1.5 m (5 ft)	kg					*8100	7190	*5840	4650	*4690	3270	*3880	2420	9.03
	lb					*17860	15850	*12870	10250	*10340	7210	*8550	5340	(29.6)
Ground	kg			*9120	*9120	*8640	6880	*6210	4460	*4820	3170	*3930	2530	8.74
	lb			*20110	*20110	*19050	15170	*13690	9830	*10630	6990	*8660	5580	(28.7)
-1.5 m (-5 ft)	kg	*9720	*9720	*12220	*12220	*8450	6790	*6160	4370			*3900	2870	8.12
	lb	*21430	*21430	*26940	*26940	*18630	14970	*13580	9630			*8600	6330	(26.6)
-3.0 m (-10 ft)	kg	*14180	*14180	*10550	*10550	*7550	6870	*5480	4420			*3650	3650	7.06
	lb	*31260	*31260	*23260	*23260	*16640	15150	*12080	9740			*8050	8050	(23.2)
-4.5 m (-15 ft)	kg			*7670	*7670	*5530	*5530							
	lb			*16910	*16910	*12190	*12190							

Boom : 5.68 m (18' 8") / Arm : 2.40 m (7' 10") / Bucket : 0.80 m<sup>3</sup> (1.05 yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser, Dozer blade Up

Load point height m (ft)		Load radius										At max. reach		
		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)		Capacity		Reach
														m (ft)
9.0 m (30 ft)	kg											*4110	*4110	5.25
	lb											*9060	*9060	(17.2)
7.5 m (25 ft)	kg					*4280	*4280					*3820	*3820	7.07
	lb					*9440	*9440					*8420	*8420	(23.2)
6.0 m (20 ft)	kg					*4500	*4500	*4220	*4220			*3760	2960	8.12
	lb					*9920	*9920	*9300	*9300			*8290	6530	(26.6)
4.5 m (15 ft)	kg			*7270	*7270	*5450	*5450	*4600	*4600	*3950	3280	*3770	2520	8.74
	lb			*16030	*16030	*12020	*12020	*10140	*10140	*8710	7230	*8310	5560	(28.7)
3.0 m (10 ft)	kg			*11380	*11380	*6850	*5230	4610	*4420	3170	*3820	2300		9.04
	lb			*25090	*25090	*15100	*15100	10160	*9740	6990	*8420	5070		(29.7)
1.5 m (5 ft)	kg					*8100	6690	*5840	4340	*4690	3050	3780	2250	9.03
	lb					*17860	14750	*12870	9570	*10340	6720	8330	4960	(29.6)
Ground	kg			*9120	*9120	*8640	6380	*6210	4150	*4820	2950	*3930	2360	8.74
	lb			*20110	*20110	*19050	14070	*13690	9150	*10630	6500	*8660	5200	(28.7)
-1.5 m (-5 ft)	kg	*9720	*9720	*12220	*12220	*8450	6300	*6160	4070			*3900	2670	8.12
	lb	*21430	*21430	*26940	*26940	*18630	13890	*13580	8970			*8600	5890	(26.6)
-3.0 m (-10 ft)	kg	*14180	*14180	*10550	*10550	*7550	6370	*5480	4110			*3650	3410	7.06
	lb	*31260	*31260	*23260	*23260	*16640	14040	*12080	9060			*8050	7520	(23.2)
-4.5 m (-15 ft)	kg			*7670	*7670	*5530	*5530							
	lb			*16910	*16910	*12190	*12190							

- Lifting capacity is based on SAE J1097, ISO 10567.
- Lifting capacity of the Robex Series does not exceed 75% of the tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The load point is a hook located on the back of the bucket.
- (\*) indicates the load limited by hydraulic capacity.

# Lifting Capacity

## R235LCR-9A (DOZER TYPE)

Rating over-front Rating over-side or 360 degree

Boom : 5.68 m (18' 8") / Arm : 2.92 m (9' 7") / Bucket : 0.80 m<sup>3</sup> (1.05 yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser, Dozer blade Down

Load point height m (ft)		Load radius										At max. reach		
		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)		Capacity		Reach
														m (ft)
9.0 m (30 ft)	kg											*2970	*2970	
	lb											*6550	*6550	
7.5 m (25 ft)	kg											*3310	*3310	
	lb											*7300	*7300	
6.0 m (20 ft)	kg											*3780	*3780	
	lb											*8330	*8330	
4.5 m (15 ft)	kg					*4810	*4810	*4190	*4190	*3860	3560	*3460	2440	9.24
	lb					*10600	*10600	*9240	*9240	*8510	7850	*7630	5380	(30.3)
3.0 m (10 ft)	kg					*9730	*9730	*6240	*6240	*4860	*4860	*4150	3420	9.52
	lb					*21450	*21450	*13760	*13760	*10710	*10710	*9150	7540	(31.2)
1.5 m (5 ft)	kg					*9500	*9500	*7650	7300	*5560	4680	*4490	3270	9.52
	lb					*20940	*20940	*16870	16090	*12260	10320	*9900	7210	(31.2)
Ground	kg					*9890	*9890	*8460	6890	*6050	4450	*4720	3140	9.24
	lb					*21800	*21800	*18650	15190	*13340	9810	*10410	6920	(30.3)
-1.5 m (-5 ft)	kg	*8800	*8800	*12860	*12860	*8530	6730	*6160	4320	*4690	3080	*3670	2540	8.66
	lb	*19400	*19400	*28350	*28350	*18810	14840	*13580	9520	*10340	6790	*8090	5600	(28.4)
-3.0 m (-10 ft)	kg	*12230	*12230	*11440	*11440	*7900	6750	*5740	4320			*3560	3120	7.69
	lb	*26960	*26960	*25220	*25220	*17420	14880	*12650	9520			*7850	6880	(25.2)
-4.5 m (-15 ft)	kg					*8990	*8990	*6360	*6360			*2980	*2980	6.11
	lb					*19820	*19820	*14020	*14020			*6570	*6570	(20.0)

Boom : 5.68 m (18' 8") / Arm : 2.92 m (9' 7") / Bucket : 0.80 m<sup>3</sup> (1.05 yd<sup>3</sup>) SAE heaped / Shoe : 600mm(24") triple grouser, Dozer blade Up

Load point height m (ft)		Load radius										At max. reach		
		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)		Capacity		Reach
														m (ft)
9.0 m (30 ft)	kg											*2970	*2970	
	lb											*6550	*6550	
7.5 m (25 ft)	kg											*3310	*3310	
	lb											*7300	*7300	
6.0 m (20 ft)	kg											*3780	*3780	
	lb											*8330	*8330	
4.5 m (15 ft)	kg					*4810	*4810	*4190	*4190	*3860	3330	*3460	2270	9.24
	lb					*10600	*10600	*9240	*9240	*8510	7340	*7630	5000	(30.3)
3.0 m (10 ft)	kg					*9730	*9730	*6240	*6240	*4860	4670	*4150	3200	9.52
	lb					*21450	*21450	*13760	*13760	*10710	10300	*9150	7050	(31.2)
1.5 m (5 ft)	kg					*9500	*9500	*7650	6790	*5560	4370	*4490	3050	9.52
	lb					*20940	*20940	*16870	14970	*12260	9630	*9900	6720	(31.2)
Ground	kg					*9890	*9890	*8460	6390	*6050	4140	*4720	2920	9.24
	lb					*21800	*21800	*18650	14090	*13340	9130	*10410	6440	(30.3)
-1.5 m (-5 ft)	kg	*8800	*8800	*12860	*12860	*8530	6240	*6160	4020	*4690	2860	*3670	2360	8.66
	lb	*19400	*19400	*28350	*28350	*18810	13760	*13580	8860	*10340	6310	*8090	5200	(28.4)
-3.0 m (-10 ft)	kg	*12230	*12230	*11440	*11440	*7900	6250	*5740	4010			*3560	2910	7.69
	lb	*26960	*26960	*25220	*25220	*17420	13780	*12650	8840			*7850	6420	(25.2)
-4.5 m (-15 ft)	kg					*8990	*8990	*6360	*6360			*2980	*2980	6.11
	lb					*19820	*19820	*14020	*14020			*6570	*6570	(20.0)

- Lifting capacity is based on SAE J1097, ISO 10567.
- Lifting capacity of the Robex Series does not exceed 75% of the tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The load point is a hook located on the back of the bucket.
- (\*) indicates the load limited by hydraulic capacity.