

## 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  
Transparent cabin roof-cover  
CD/MP3 Player  
Handsfree mobile phone system with USB  
Sun visor

### Computer aided power optimization (New CAPO) system

3-power mode, 3-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

### Two outside rearview mirrors

### Fully adjustable suspension seat with seat belt

### Pilot-operated slidable joystick

### Console box height adjust system

### Three front working lights

Electric horn

Batteries (2 x 12V x 160 AH)

Battery master switch

Removable clean-out screen for oil cooler

Automatic swing brake

Removable reservoir tank

Fuel pre-filter with fuel warmer

Boom holding system

Arm holding system

Counterweight (6200kg, 13670lb)

Track shoes (600mm, 24")

Track rail guard

Accumulator for lowering work equipment

Electric transducer

Lower frame under cover (Normal)

## 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

12 volt power outlet (24V DC to 12V DC converter)

Travel alarm

Booms

6.15 m, 20' 2"

6.45 m, 21' 2"

6.45 m, 21' 2" Heavy Duty

Arms

2.2 m, 7' 3"

2.5 m, 8' 2"

3.2 m, 10' 6"

3.2 m, 10' 6" Heavy Duty

4.05 m, 13' 3"

Climate control

Air conditioner only

Heater only

Cabin FOPS/FOG (ISO/DIS 10262)

FOPS (Falling Object Protective Structure)

FOG (Falling Object Guard)

Cabin roof-steel cover

Cabin lights

Cabin front window rain guard

Track shoes

Triple grousers shoe (700 mm, 28")

Triple grousers shoe (800 mm, 32")

Triple grousers shoe (900 mm, 36")

Double grousers shoe (700 mm, 28")

Full track rail guard

Lower frame under cover (Additional)

Pre-heating system, coolant

Tool kit

Operator suit

Rearview camera

Seat

Adjustable air suspension seat

Adjustable air suspension seat with heater

Mechanical suspension seat with heater

Pattern change valve (2 patterns)

Hi-mate (Remote Management System)

## PLEASE CONTACT



## CONSTRUCTION EQUIPMENT

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We build a better future

Robex

# 320LC-9

With Tier 3 Engine installed



\*Photo may include optional equipment.

# 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 a Hyundai!

# Robex 320LC-9

## Machine Walk-Around



### 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

### Engine Technology

Proven / reliable, fuel efficient Cummins Tier III QSC engine  
Electronically controlled for optimum fuel to air ratio and clean, efficient combustion  
Low noise / Auto engine overheat feature / Anti-restart feature

### 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 valves, 1 check valve accumulator and pilot filter - controls 2 speed travel, power boost, boom priority, safety lock

### 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) or optional air ride suspension with heat  
New joystick consoles - now adjustable in height by way of dial at bottom  
Adjustable arm rests - turn dial to raise or lower for optimum comfort

### Advanced 7" Color Cluster

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 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, 20% more heat and air output than 7A series!  
RMS (Remote Management System) works through GPS/satellite technology to ultimately provide better customer service and support.

# Preference

Operating a 9 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 9 series cabin you can easily adjust the seat, console and armrest settings to best suit your preferred comfort level. Seat and console position and height can be set together and independent from each other. Other preference settings that add to overall operator comfort include the full automatic high capacity airconditioning system and the CD/MP3 radio.



## Reduced Stress

Work is stressful enough. Your work environment should be stress free. Hyundai's 9 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 CD 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.



## Operator - Friendly Cluster

The advanced new cluster with 7 inch wide color LCD 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.



## Precision

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



## 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 9 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



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

## Track Rail Guard & Adjusters

standard grease cylinder track adjusters and shock absorbing springs.



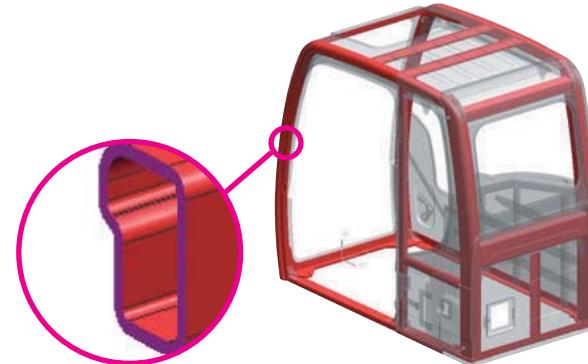
## CUMMINS QSC Engine

The Tier III compliant, six cylinder, turbocharged, 4 cycle, water cooled, Cummins QSC diesel engine is built for power, reliability, efficiency and reduced emissions.

## Heavy-duty strength

The QSC from Cummins. With advanced electronics. Higher torque. Better throttle response. Shorter service times. Longer maintenance intervals. Increased fuel economy. Decreased noise. Diagnostics. Prognostics. Engine protection, and more. All wrapped up in something we call the Quantum system.

The QSC is built to withstand the toughest work environment. Bearings have more surface area to handle higher loads with greater durability. The exhaust manifold allows for heat expansion and contraction, eliminating metal stress fractures. Reduced friction in the power cylinder means longer life and increased power output. From the structurally reinforced block to the stiffened gear housing, the QSC is built stronger to last longer.



## Structure Strength

The 9 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.



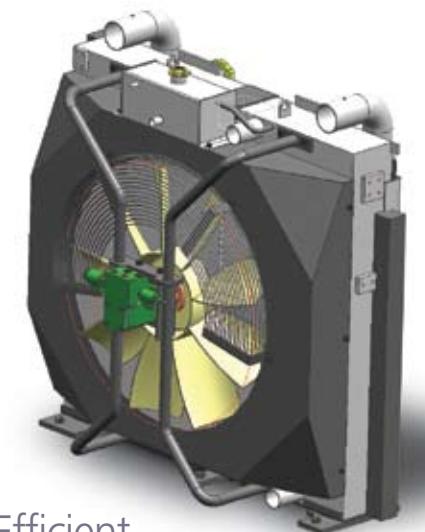
# Profitable

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



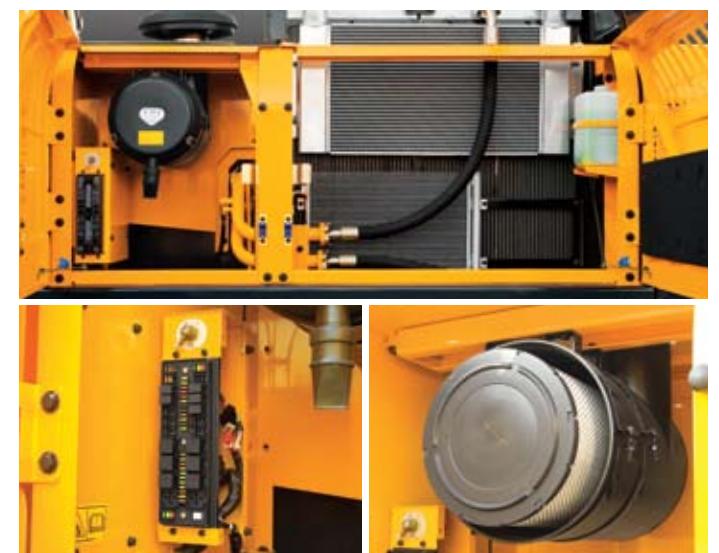
## Hi-mate (Remote Management System)

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.



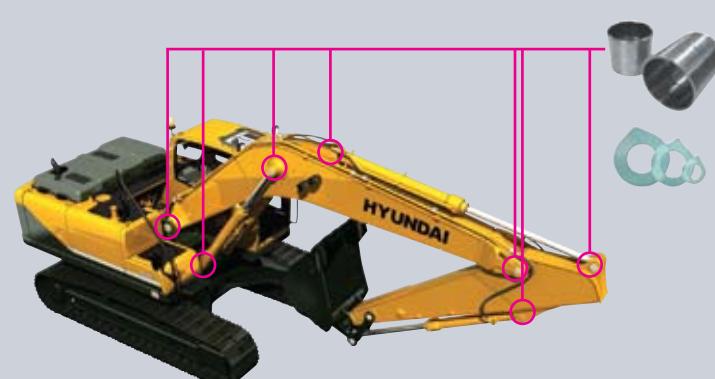
## Fuel Efficient

9 series excavators are engineered to be extremely fuel efficient. New innovations like the variable speed & remote fan, three-stage auto decel system and the new economy mode help to conserve fuel and reduce the impact on the environment.



## Easy Access

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



## Extended Life Components

9 series excavators were designed with extended lubricant bush life & ultra high molecular weight polymer shim (wear resistant, noise reducing), extended-life hydraulic filters (1,000hr), long-life hydraulic oil (5,000hr), more efficient cooling systems and integrated preheating systems to long extend service intervals, minimize operating costs and reduce machine down time.

# Specifications

## ENGINE

MODEL		Cummins QSC
Type		Water-cooled, 4-cycle Diesel, 6-Cylinder in-line, Direct injection, Turbocharged, Charge air cooled, Low emission
Rated flywheel horsepower	SAE	J1995 (gross) 278HP (213kW)/ 1,750rpm J1349 (net) 263HP (196kW)/ 1,750rpm
	DIN	6271/1 (gross) 282PS (213kW)/ 1,750rpm 6271/1 (net) 267PS (196kW)/ 1,750rpm
Max. torque		123.7kgf-m (895lbf-ft)/1,500rpm
Bore X stroke		114mm X 135mm (4.5" X 5.3")
Piston displacement		8,300cc (506 in³)
Batteries		2 X 12V X 160AH
Starting motor		24V, 7.5kW
Alternator		24V, 50Amp

## HYDRAULIC SYSTEM

MAIN PUMP	
Type	Variable displacement tandem-axis piston pumps
Max. flow	2 X 270 L/min (68.7 US gpm/57.2 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/cm² (4,690 psi)
Travel	350 kgf/cm² (4,690 psi)
Power boost (boom, arm, bucket)	380 kgf/cm² (5,120 psi)
Swing circuit	300 kgf/cm² (3,770 psi)
Pilot circuit	40 kgf/cm² (500 psi)
Service valve	Installed

## HYDRAULIC CYLINDERS

No. of cylinder bore X stroke	Boom: 2-150 X 1,480 mm (5.9" X 58.3")
	Arm: 1-160 X 1,685 mm (6.3" X 66.3")
	Bucket: 1-140 X 1,285 mm (5.5" X 50.6")

## DRIVES & BRAKES

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor, in-shoe design
Reduction system	Planetary reduction gear
Max. drawbar pull	29,500 kgf (65,040lbf)
Max. travel speed (high / low)	5.5 km/hr (3.4 mph) / 3.3 km/hr (2.1 mph)
Gradeability	35° (70 %)
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
Lights	Two lights mounted on the boom, one light mounted on the battery box

## SWING SYSTEM

Swing motor	Two fixed displacement axial pistons motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Multi wet disc
Swing speed	9.2 rpm

## COOLANT & LUBRICANT CAPACITY

Re-filling	liter	US gal	UK gal
Fuel tank	500	132.1	110.0
Engine coolant	45.0	11.9	9.9
Engine oil	35	9.2	7.7
Swing device - gear oil	11	1.8	1.5
Final drive (each) - gear oil	5.5	2.9	2.4
Hydraulic system (including tank)	330	87.2	72.6
Hydraulic tank	190	50.2	41.8

## 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	48
No. of carrier rollers on each side	2
No. of track rollers on each side	9
No. of rail guards on each side	2

## OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 6,450mm (21' 2") boom, 3,200mm (10' 6") arm, SAE heaped 1.44m³ (1.88 yd³) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, and all standard equipments.

## MAJOR COMPONENT WEIGHT

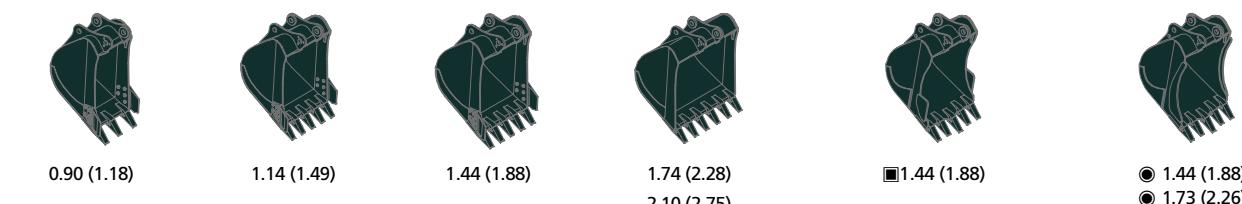
Upperstructure	8,320kg (18,340lb)
Counterweight	6,200kg (13,670lb)
Boom (with arm cylinder)	3,030kg (6,680lb)
Arm (with bucket cylinder)	1,770kg (3,900lb)

## OPERATING WEIGHT

Shoes	Operating weight		Ground pressure
Type	Width mm (in)	kg (lb)	kgf/cm² (psi)
600 mm (24")	R320LC-9	33,000 (72,750)	0.63 (8.96)
	R320NLC-9	32,800 (72,310)	0.63 (8.96)
700 mm (28")	R320LC-9 H/W	35,500 (78,260)	0.68 (9.67)
	R320LC-9	33,600 (74,070)	0.55 (7.82)
800 mm (32")	R320LC-9 H/W	36,100 (79,590)	0.59 (8.39)
	R320LC-9	34,000 (74,960)	0.49 (6.97)
900 mm (36")	R320LC-9 H/W	36,500 (80,470)	0.53 (7.54)
Double grouser	R320LC-9	34,400 (75,840)	0.44 (6.26)
700 mm (28")	R320LC-9 H/W	37,000 (81,570)	0.61 (8.67)

## BUCKETS

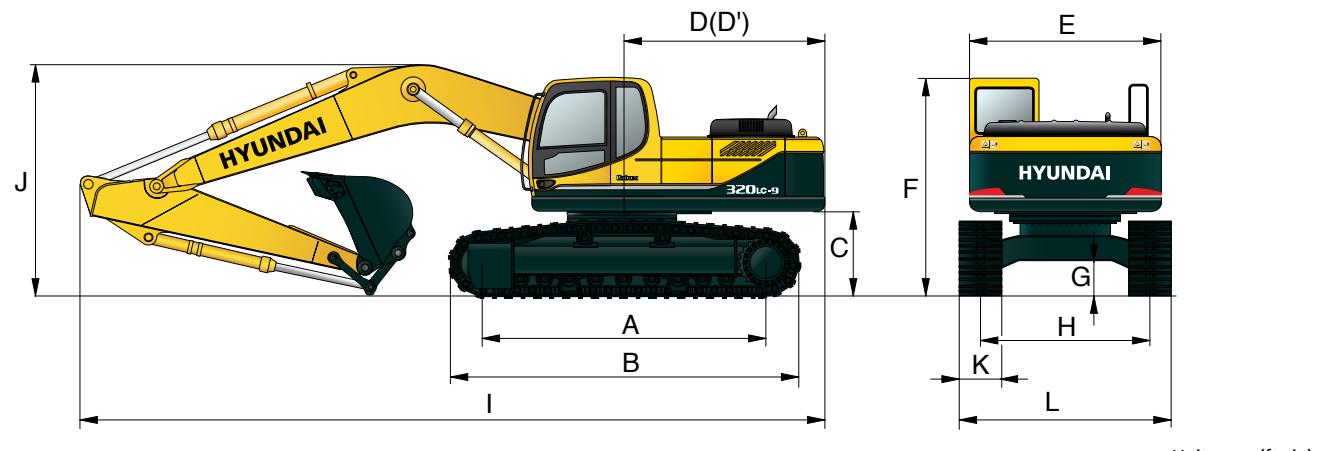
All buckets are welded with high-strength steel.



Capacity m³ (yd³)	Width mm (in)	Weight kg (lb)	Recommendation mm (ft-in)			
			6,450 (21' 2") Boom			
			2,200 (7' 3") Arm	2,500 (8' 2") Arm	3,200 (10' 6") Arm	4,050 (13' 3") Arm
0.90 (1.18)	80.0 (1.05)	950 (37.4)	1,070 (42.1)	870 (1920)	●	●
1.14 (1.49)	100.0 (1.31)	1,110 (43.7)	1,230 (48.4)	980 (2160)	●	●
1.44 (1.88)	125.0 (1.63)	1,380 (54.3)	1,500 (59.1)	1,110 (2450)	●	■
1.74 (2.28)	150.0 (1.96)	1,620 (63.8)	1,740 (68.5)	1,230 (2710)	■	▲
2.10 (2.75)	180.0 (2.35)	1,910 (75.2)	2,030 (79.9)	1,370 (3020)	▲	—
2.10 (2.75)	180.0 (2.35)	1,910 (75.2)	2,030 (79.9)	1,370 (3020)	▲	—
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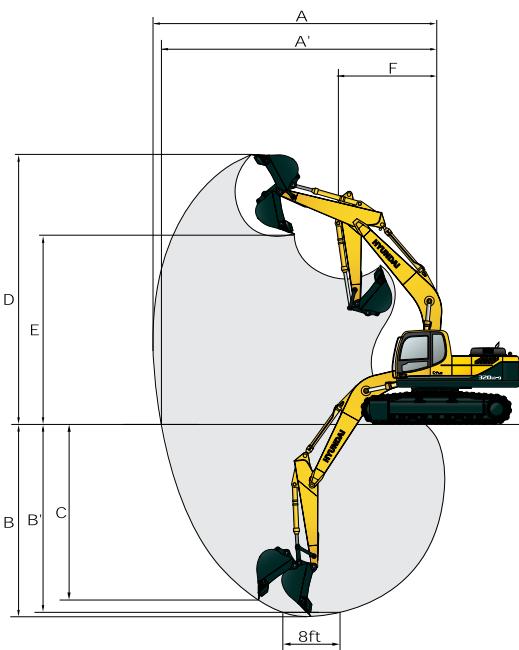
## Dimensions & Working Range

### R320LC-9 / R320NLC-9 DIMENSIONS



		Unit : mm (ft · in)								
A	Tumbler distance	R320LC-9	4,030 (13' 3")	Boom length						
		R320NLC-9	4,030 (13' 3")	6,450 (21' 2")						
B	Overall length of crawler		4,940 (16' 2")	Arm length	2,200 (7' 3")	2,500 (8' 2")	3,200 (10' 6")	4,050 (13' 3")	3,600 (11' 10")	
C	Ground clearance of counterweight		1,200 (3' 11")	I	Overall length	11,230 (36' 10")	11,100 (36' 5")	10,980 (36' 0")	10,980 (36' 0")	10,930 (35' 10")
D	Tail swing radius		3,330 (10' 11")	J	Overall height of boom	3,640 (11' 11")	3,670 (12' 0")	3,380 (11' 1")	3,860 (12' 8")	3,680 (12' 1")
D'	Rear-end length		3,265 (10' 9")	K	Track shoe width	600 (24")	700 (28")	800 (32")	900 (36")	
E	Overall width of upperstructure		2,980 (9' 9")	L	Overall width	R320LC-9	3,280 (10' 9")	3,380 (11' 1")	3,480 (11' 5")	3,580 (11' 9")
F	Overall height of cab		3,090 (10' 2")	R320NLC-9						
G	Min. ground clearance		500 (1' 8")							
H	Track gauge	R320LC-9	2,680 (8' 10")							
		R320NLC-9	2,390 (7' 10")							

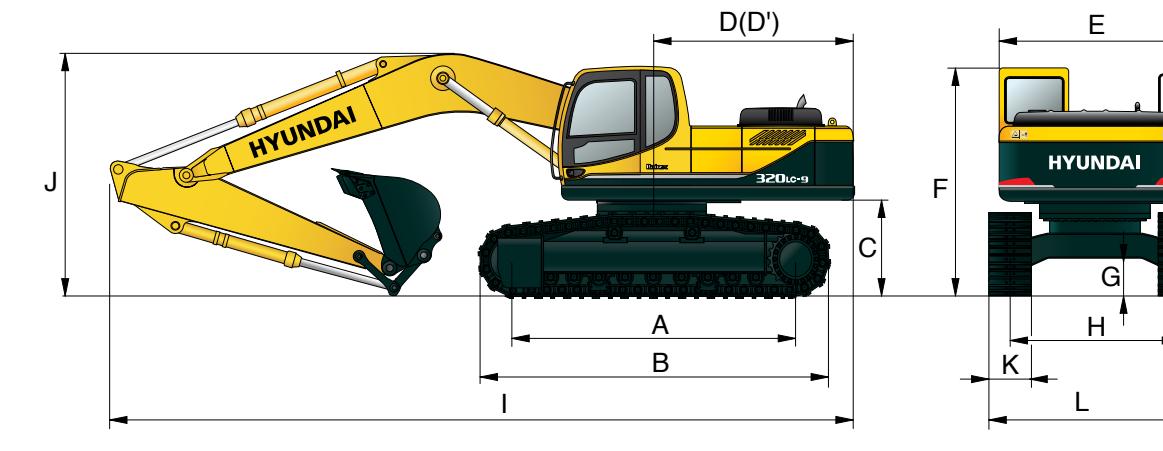
### R320LC-9 / R320NLC-9 WORKING RANGE



		Unit : mm (ft · in)				
		Boom length				
		6,450 (21' 2")				
		Arm length	2,200 (7' 3")	2,500 (8' 2")	3,200 (10' 6")	4,050 (13' 3")
A	Max. digging reach		10,330 (33' 11")	10,550 (34' 7")	11,140 (36' 7")	10,020 (32' 10")
A'	Max. digging reach on ground		10,110 (33' 2")	10,330 (33' 11")	10,940 (35' 11")	11,760 (38' 7")
B	Max. digging depth		6,370 (20' 11")	6,670 (21' 11")	7,370 (24' 2")	8,220 (26' 12")
B'	Max. digging depth (8' level)		6,160 (20' 3")	6,470 (21' 3")	7,210 (23' 8")	8,080 (26' 6")
C	Max. vertical wall digging depth		5,980 (19' 7")	5,920 (19' 5")	6,360 (20' 10")	7,260 (23' 10")
D	Max. digging height		10,220 (33' 6")	10,170 (33' 4")	10,310 (33' 10")	10,710 (35' 2")
E	Max. dumping height		7,050 (23' 2")	7,050 (23' 2")	7,240 (23' 9")	7,630 (25' 0")
F	Min. swing radius		4,700 (15' 5")	4,500 (14' 9")	4,470 (14' 8")	4,470 (14' 8")

## Dimensions & Working Range

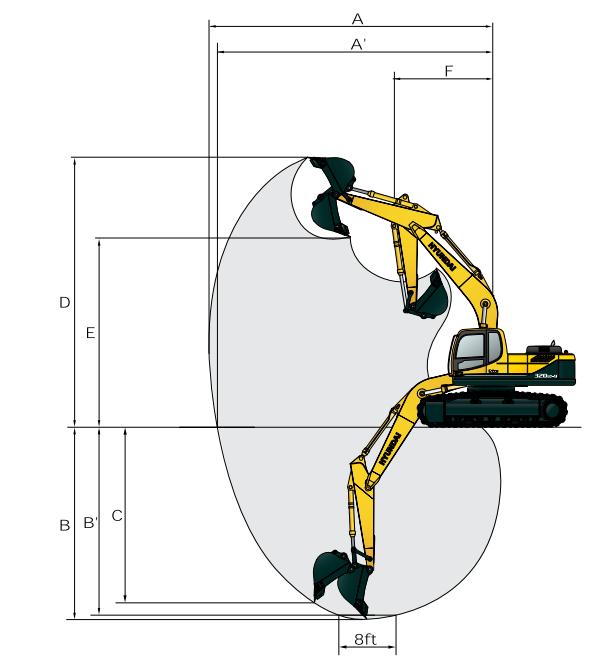
### R320LC-9 HIGH WALKER DIMENSIONS



		Unit : mm (ft · in)									
A	Tumbler distance		4,030 (13' 3")	Boom length							
			4,940 (16' 2")	6,450 (21' 2")							
B	Overall length of crawler		4,940 (16' 2")	Arm length	2,200 (7' 3")	2,500 (8' 2")	3,200 (10' 6")	4,050 (13' 3")	2,200 (7' 3")		
C	Ground clearance of counterweight		1,500 (4' 11")	I	Overall length	11,220 (36' 10")	11,100 (36' 5")	10,910 (35' 10")	11,000 (36' 1")	10,920 (35' 10")	
D	Tail swing radius		3,330 (10' 11")	D'	Rear-end length		3,265 (10' 9")				
E	Overall width of upperstructure		2,980 (9' 9")	J	Overall height of boom		3,740 (12' 3")	3,760 (12' 4")	3,360 (11' 0")	3,810 (12' 6")	3,780 (12' 5")
F	Overall height of cab		3,390 (11' 1")	K	Track shoe width	Type	Triple grouser			Double grouser	
G	Min. ground clearance		765 (2' 6")	L	Width	600 (24")	700 (28")	800 (32")	700 (28")		
H	Track gauge		2,870 (9' 5")			3,470 (11' 5")	3,570 (12' 9")	3,670 (12' 0")	3,580 (11' 9")		

### R320LC-9 HIGH WALKER WORKING RANGE

		Unit : mm (ft · in)						
		Boom length						
		6,450 (21' 2")						
		Arm length	2,200 (7' 3")	2,500 (8' 2")	3,200 (10' 6")	4,050 (13' 3")		
A	Max. digging reach		10,330 (33' 11")	10,550 (34' 7")	11,140 (36' 7")	11,950 (39' 2")	10,020 (32' 10")	
A'	Max. digging reach on ground		10,110 (33' 2")	10,330 (33' 11")	10,940 (35' 11")	11,760 (38' 7")	11,710 (38' 5")	9,730 (31' 11")
B	Max. digging depth		6,100 (20' 0")	6,400 (20' 12")	7,100 (23' 4")	7,950 (26' 1")	5,880 (19' 3")	
B'	Max. digging depth (8' level)		5,890 (19' 4")	6,200 (20' 4")	6,940 (22' 9")	7,950 (26' 1")	5,680 (18' 8")	
C	Max. vertical wall digging depth		5,700 (18' 8")	5,650 (18' 6")	6,080 (19' 11")	6,980 (22' 11")	5,440 (17' 10")	
D	Max. digging height		10,500 (34' 5")	10,450 (34' 3")	10,590 (34' 9")	10,990 (36' 1")	10,220 (33' 6")	
E	Max. dumping height		7,330 (24' 1")	10,450 (34' 3")	7,520 (24' 8")	7,910 (25' 11")	7,060 (23' 2")	
F	Min. swing radius		4,700 (15' 5")	4,500 (14' 9")	4,470 (14' 8")	4,470 (14' 8")	4,520 (14' 10")	



# Lifting Capacity

R320LC-9

Boom : 6.45m (21' 2") / Arm : 2.5 m (8' 2") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweight

Load point height m (ft)	Load radius										At max. reach			
	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity	Reach		
												m (ft)		
7.5 m (25.0 ft) kg lb											*6720	5040	8.34	
6.0 m (20.0 ft) kg lb											*14820	11110	(27.4)	
4.5 m (15.0 ft) kg lb			*11600	*11600	*9120	8430	*7930	5770			6430	4100	9.19	
3.0 m (10.0 ft) kg lb			*25570	*25570	*20110	18580	*17480	12720			14180	9040	(30.2)	
1.5 m (5.0 ft) kg lb			*15130	12220	*10770	7870	8690	5490			5740	3600	9.70	
Ground kg			*33360	26940	*23740	17350	19160	12100			5420	3360	9.92	
Line kg			*17590	11360	12060	7390	8400	5240	6240	3860	5380	3310	9.88	
-1.5 m (-5.0 ft) kg lb			*38780	25040	26590	16290	18520	11550	13760	8510	11860	7300	(32.4)	
-3.0 m (-10.0 ft) kg lb			*18360	11070	11730	7110	8200	5060			5630	3470	9.57	
-4.5 m (-15.0 ft) kg lb			*40480	24410	25860	15670	18080	11160			12410	7650	(31.4)	
-1.5 m (-5.0 ft) kg lb			*15010	*15010	*18010	11060	11630	7010	8130	4990	6280	3890	8.97	
-3.0 m (-10.0 ft) kg lb			*33090	*33090	*39710	24380	25640	15450	17920	11000		13850	8580	(29.4)
-4.5 m (-15.0 ft) kg lb			*22800	*22800	*16720	11240	11710	7090			7670	4800	7.98	
-1.5 m (-5.0 ft) kg lb			*50270	*50270	*36860	24780	25820	15630			16910	10580	(26.2)	
-3.0 m (-10.0 ft) kg lb			*19110	*19110	*14080	11620	*10340	7380			*7300	7080	6.42	
-4.5 m (-15.0 ft) kg lb			*42130	*42130	*31040	25620	*22800	16270			*16090	15610	(21.1)	

Boom : 6.45m (21' 2") / Arm : 3.2 m (10' 6") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweight

Load point height m (ft)	Load radius										At max. reach		
	1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		Capacity	Reach	
												m (ft)	
7.5 m (25.0 ft) kg lb											*5240	*5240	9.06
6.0 m (20.0 ft) kg lb											*11550	9630	(29.7)
4.5 m (15.0 ft) kg lb											*13160	12630	9.84
3.0 m (10.0 ft) kg lb											5730	3620	
1.5 m (5.0 ft) kg lb											12630	7980	(32.3)
Ground kg											5160	3200	10.31
Line kg											11380	7050	(33.8)
-1.5 m (-5.0 ft) kg lb											8090	8090	7190
-3.0 m (-10.0 ft) kg lb											17840	17840	15850
-4.5 m (-15.0 ft) kg lb											13400	12620	9820
-1.5 m (-5.0 ft) kg lb											29540	27820	21650
-3.0 m (-10.0 ft) kg lb											16400	11540	11460
-4.5 m (-15.0 ft) kg lb											36160	25440	25260
-1.5 m (-5.0 ft) kg lb											10240	10240	17910
-3.0 m (-10.0 ft) kg lb											22580	22580	39480
-4.5 m (-15.0 ft) kg lb											11380	11380	14470
-1.5 m (-5.0 ft) kg lb											25090	25090	31900
-3.0 m (-10.0 ft) kg lb											15350	15350	19470
-4.5 m (-15.0 ft) kg lb											33840	33840	42920
-1.5 m (-5.0 ft) kg lb											21820	21820	15410
-3.0 m (-10.0 ft) kg lb											48100	48100	33970
-4.5 m (-15.0 ft) kg lb											11340	11340	24740
-1.5 m (-5.0 ft) kg lb											25000	25000	25000

Boom : 6.45m (21' 2") / Arm : 4.05 m (13' 3") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweight

Load point height m (ft)	Load radius										At max. reach		
	1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		Capacity	Reach	
												m (ft)	
7.5 m (25.0 ft) kg lb											*5250	3640	10.00
6.0 m (20													

## Lifting Capacity

R320NLC-9

Rating over-front  Rating over-side or 360 degree

Boom : 6.45m (21' 2") / Arm : 2.5 m (8' 2") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweight

Load point height m (ft)		Load radius										At max. reach		
		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity		Reach
													m (ft)	
7.5 m (25.0 ft)	kg lb											*6720	4240	8.34
6.0 m (20.0 ft)	kg lb							*7320	5050			*14820	9350	(27.4)
4.5 m (15.0 ft)	kg lb			*11600	11300	*9120	7100	*7930	4840			6390	3410	9.19
3.0 m (10.0 ft)	kg lb			*25570	24910	*20110	15650	*17480	10670			14090	7520	(30.2)
1.5 m (5.0 ft)	kg lb			*15130	10060	*10770	6560	8630	4570			5700	2960	9.70
Ground Line	kg lb			*33360	22180	*23740	14460	19030	10080			12570	6530	(31.8)
-1.5 m (-5.0 ft)	kg lb			*17590	9250	11980	6100	8350	4320	6190	3160	5380	2740	9.92
-3.0 m (-10.0 ft)	kg lb			*38780	20390	26410	13450	18410	9520	13650	6970	11860	6040	(32.5)
-4.5 m (-15.0 ft)	kg lb			*18360	8980	11660	5830	8150	4150			5590	2820	9.57
-5.0 m (-17.5 ft)	kg lb			*40480	19800	25710	12850	17970	9150			12320	6220	(31.4)
-1.5 m (-5.0 ft)	kg lb	*15010	*15010	*18010	8970	11550	5740	8080	4080			6230	3180	8.97
-3.0 m (-10.0 ft)	kg lb	*33090	*33090	*39710	19780	25460	12650	17810	8990			13730	7010	(29.4)
-4.5 m (-15.0 ft)	kg lb	*22800	18590	*16720	9130	11640	5810					7620	3960	7.98
-5.0 m (-17.5 ft)	kg lb	*50270	40980	*36860	20130	25660	12810					16800	8730	(26.2)
-4.5 m (-15.0 ft)	kg lb	*19110	*19110	*14080	9490	*10340	6090					*7300	5910	6.42
-5.0 m (-17.5 ft)	kg lb	*42130	*42130	*31040	20920	*22800	13430					*16090	13030	(21.1)

Boom : 6.45m (21' 2") / Arm : 3.2 m (10' 6") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweight

Load point height m (ft)		Load radius								At max. reach					
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity	Reach
														m (ft)	
7.5 m (25.0 ft)	kg lb									*5240	*5240			*5970 3650 9.06	
6.0 m (20.0 ft)	kg lb									*11550	*11550			*13160 8050 (29.7)	
4.5 m (15.0 ft)	kg lb									*6500	5160			5690 2990 9.84	
3.0 m (10.0 ft)	kg lb									*14330	11380			12540 6590 (32.3)	
1.5 m (5.0 ft)	kg lb							*8090		7260	*7190	4910	*5440	3440 5120 2610 10.31	
Ground	kg							*17840		16010	*15850	10820	*11990	7580 11290 5750 (33.8)	
Line	lb							*10240		*10240	*17910	8920	*8110	4600 6340 3280 4850 2410 10.52	
-1.5 m (-5.0 ft)	kg lb							*22580		*22580	*39480	19670	25620	12740 17840 8990 13290 6610 10980 5380 (33.4)	
-3.0 m (-10.0 ft)	kg lb							*11380		*11380	*14470	*18150	8780	11410 5610 7950 3960 5460 2710 9.63	
-4.5 m (-15.0 ft)	kg lb							*25090		*25090	*31900	*31900	*40010	19360 25150 12370 17530 8730 12040 5970 (31.6)	
-6.0 m (-20.0 ft)	kg lb							*15350		*15350	*19470	17990	*17370	8850 11410 5610 7960 3970 6450 3280 8.74	
-7.5 m (-25.0 ft)	kg lb							*33840		*33840	*42920	39660	*38290	19510 25150 12370 17550 8750 14220 7230 (28.7)	
-9.0 m (-30.0 ft)	kg lb							*21820		18520	*15410	9110	*11430	5780 *7480 4520 7.37	
-10.5 m (-40.0 ft)	kg lb							*48100		40830	*33970	20080	*25200	12740 *16490 9960 (24.2)	
-12.0 m (-50.0 ft)	kg lb							*11340		9660					
-13.5 m (-60.0 ft)	kg lb							*25000		21300					

Boom : 6.45m (21' 2") / Arm : 4.05 m (13' 3") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweight

Load point height m (ft)		Load radius								At max. reach					
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity	Reach
														m (ft)	
7.5 m (25.0 ft)	kg lb													*5250 3010 10.00	
6.0 m (20.0 ft)	kg lb													*11570 6640 (32.8)	
4.5 m (15.0 ft)	kg lb									*6270 5060 *13820 11160		*5750 3530 *12680 7780		4470 2210 9850 4870 (36.5)	
3.0 m (10.0 ft)	kg lb			*18220 *40170		*18220 *40170		*11250 *24800		11040 24340		*8610 *18980		6930 15280 *16050 10410 14130 7360	
1.5 m (5.0 ft)	kg lb			*10440 *23020		*10440 *23020		*14750 *32520		9840 21690		*10470 *23080		6320 13930 *18430 9680 13670 6940	
Ground Line	kg lb			*10810 *23830		*10810 *23830		*17060 *37610		9090 20040		11730 25860		5870 12940 8130 17920 4110 9060	
-1.5 m (-5.0 ft)	kg lb	*9850 *21720		*9850 *21720		*13390 *29520		*13390 *29520		*18030 *39750		8760 19310		11420 25180 5600 12350 17460 8660	
-3.0 m (-10.0 ft)	kg lb	*13020 *28700		*13020 *28700		*16980 *37430		*16980 *37430		*17900 *39460		8710 19200		11310 24930 5510 12150 17280 8510	
-4.5 m (-15.0 ft)	kg lb	*16670 *36750		*16670 *36750		*21800 *48060		*16680 *36770		18000 19510		8850 25110		11390 12300 5580 17460 3930 8660	
-6.0 m (-20.0 ft)	kg lb			*20030 *44160		18700 41230		*13950 *30750		9210 20300		*10120 *22310		5850 12900 *6790 *14970	
														5340 11770 (22.0)	

# Lifting Capacity

## R320LC-9 HIGH WALKER

 Rating over-front  Rating over-side or 360 degree

oom : 6.45m (21' 2") / Arm : 2.5 m (8' 2") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweight

Load point height m (ft)		Load radius								At max. reach		
		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity
												m (ft)
7.5 m (25.0 ft)	kg lb											*6730      5630      8.53
6.0 m (20.0 ft)	kg lb							*7410      6920				*14840      12410      (28.0)
4.5 m (15.0 ft)	kg lb			*12260      *12260      *9420      *9420      *8070      6690							*6840      4700      9.31	
3.0 m (10.0 ft)	kg lb			*27030      *27030      *20770      *20770      *17790      14750							*15080      10360      (30.5)	
1.5 m (5.0 ft)	kg lb			*15720      14150      *11070      9100      *8930      6400      7000      4710      5970							6250      4210      9.76	
Ground Line	kg lb			*34660      31200      *24410      20060      *19690      14110      15430      10380      13160							13780      9280      (32.0)	
-1.5 m (-5.0 ft)	kg lb			*17850      13390      *12430      8650      9190      6150							4000      3820      9.93	
-3.0 m (-10.0 ft)	kg lb			*39350      29520      *27400      19070      20260      13560							13160      8820      (32.6)	
-4.5 m (-15.0 ft)	kg lb			*18370      13170      12850      8400      9020      5990							5990      3990      9.84	
				*40500      29030      28330      18520      19890      13210							13210      8800      (32.3)	
												6330      4220      9.48
												13960      9300      (31.1)
												7140      4780      8.82
												15740      10540      (28.9)
												*7890      5990      7.75
												*17390      13210      (25.4)

oom : 6.45m (21' 2") / Arm : 3.2 m (10' 6") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweight

Load point height m (ft)		Load radius								At max. reach													
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity	Reach								
													m (ft)										
7.5 m (25.0 ft)	kg lb									*5730	*5730		*5990	4920	9.24								
6.0 m (20.0 ft)	kg lb									*12630	*12630		*13210	10850	(30.3)								
4.5 m (15.0 ft)	kg lb									*6600	*6600		*6130	4180	9.95								
										*14550	*14550		*13510	9220	(32.6)								
3.0 m (10.0 ft)	kg lb									*8400	*8400	*7350	6760	*5820	4880	5660	3770	10.37					
										*18520	*18520	*16200	14900	*12830	10760	12480	8310	(34.0)					
1.5 m (5.0 ft)	kg lb									*14050	*14050	*10150	9210	*8290	6430	7030	4710	5420	3580	10.53			
										*30970	*30970	*22380	20300	*18280	14180	15500	10380	11950	7890	(34.5)			
Ground	kg									*16800	13530	*11720	8680	*9210	6130	6860	4550	5420	3560	10.45			
Line	lb									*37040	29830	*25840	19140	*20300	13510	15120	10030	11950	7850	(34.3)			
-1.5 m (-5.0 ft)	kg lb									*10990	*10990	*18040	13080	*12750	8330	8980	5920	6740	4440	5670	3720	10.11	
										*24230	*24230	*39770	28840	*28110	18360	19800	13050	14860	9790	12500	8200	(33.2)	
-3.0 m (-10.0 ft)	kg lb									*16150	*16150	*20540	*17110	13090	*12630	8220	8910	5850		7510	5000	8.53	
-4.5 m (-15.0 ft)	kg lb									*35600	*35600	*45280	*45280	*37720	28860	*27840	18120	19640	12900		16560	11020	(28.0)
										*20940	*20940	*14870	13430	*10980	8450					*7390	6990	7.03	
										*46160	*46160	*32780	29610	*24210	18630					*16290	15410	(23.1)	

boom : 6.45m (21' 2") / Arm : 4.05 m (13' 3") / Bucket : 1.44 m<sup>3</sup> (1.20 yd<sup>3</sup>) SAE heaped / Shoe : 600mm (24") triple grouser with 6,200kg (13,670 lb) Counterweid

Load point height m (ft)		Load radius										At max. reach				
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		9.0 m (30.0 ft)		Capacity	Reach	
														m (ft)		
7.5 m (25.0 ft)	kg lb											*3030 *6680	*3030 *6680	*5280 *11640	4150 9150	10.16 (33.3)
6.0 m (20.0 ft)	kg lb											*4770 *10520	*4770 *10520	5370 11840	3600 7940	10.81 (35.5)
4.5 m (15.0 ft)	kg lb									*6440 *14200	*6440 *14200	*5980 *13180	4970 10960	4950 10910	3270 7210	11.19 (36.7)
3.0 m (10.0 ft)	kg lb		*20040 *44180	*20040 *44180	*11950 *26350	*11950 *26350	*8970 *19780	*8970 *19780	*7490 *16510	6560 14460	*6650 *14660	4770 10520	4750 10470	3110 6860	11.33 (37.2)	
1.5 m (5.0 ft)	kg lb		*10150 *22380	*10150 *22380	*15290 *33710	13960 30780	*10790 *23790	8860 19530	*8550 *18850	6210 13690	6870 15150	4570 10080	4740 10450	3090 6810	11.26 (36.9)	
Ground	kg	*7400	*7400	*11200	*11200	*17340	13230	*12170	8410	8970	5940	6690	4410	4920	3200	10.95
Line	lb	*16310	*16310	*24690	*24690	*38230	29170	*26830	18540	19780	13100	14750	9720	10850	7050	10.95
-1.5 m (-5.0 ft)	kg lb	*10420 *22970	*10420 *22970	*13990 *30840	*13990 *30840	*18090 *39880	12940 28530	12600 27780	8160 17990	8790 19380	5770 12720	6590 14530	4320 9520	5350 11790	3500 7720	10.39 (34.1)
-3.0 m (-10.0 ft)	kg lb	*13660 *30120	*13660 *30120	*17770 *39180	*17770 *39180	*17760 *39150	12920 28480	12530 27620	8100 17860	8740 19270	5720 12610			6190 13650	4090 9020	9.53 (31.3)
-4.5 m (-15.0 ft)	kg lb	*17430 *38430	*17430 *38430	*22910 *50510	*22910 *50510	*16310 *35960	13120 28920	*12000 *26460	8200 18080	8860 19530	5830 12850			*7060 *15560	5280 11640	8.25 (27.1)
-6.0 m (-20.0 ft)	kg lb			*18860 *41580	*18860 *41580	*13180 *20060	*13180 *20060	*9410 *20750	8550 18850							

Lifting capacity is based on SAE J1097, ISO 10567.

Lifting capacity is based on SAE J1097, ISO 10567.

Lifting capacity of the Robex Series does not exceed 75% of the tipping load of 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.

The load point is a hook located on the back of the bucket. (+) indicates the load limited by hydraulic capacity.

(\*) indicates the load limited by hydraulic capacity.