

## 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
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 slideable 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
Booms
5.68 m, 18' 8"
5.68 m, 18' 8" Heavy duty
8.2 m, 26' 11" Long reach
Arms
2.0 m, 6' 7"
2.4 m, 7' 10"
2.92 m, 9' 7"
2.92 m, 9' 7" Heavy duty
3.9 m, 12' 10"
6.3 m, 20' 8" Long reach
Climate control
Air conditioner only
Heater only
Cabin FOPS/FOG (ISO/DIS 10262 Level II)
FOPS (Falling Object Protective Structure)
FOG (Falling Object Guard)
Cabin ROPS (ISO 12117-2)
ROPS (Roll Over Protective Structure)
Cabin guard front
Wire net
Fine net
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(High walker only)
Lower frame under cover (Additional)
Tool kit
Rearview camera
Seat
Adjustable air suspension seat
Adjustable air suspension seat with heater
Mechanical suspension seat
Pattern change valve (2 patterns)
Hi-mate (Remote Management System)
Air compressor
Rear work lamp

PLEASE CONTACT



CONSTRUCTION EQUIPMENT

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Robex

# 220LC-9A

With Tier 4 Interim Engine installed

HYUNDAI HEAVY INDUSTRIES



\*Photo may include optional equipment.

HYUNDAI  
HEAVY INDUSTRIES CO., LTD.

MOVING YOU FURTHER

# 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 220LC-9A**



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## 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) or optional air ride suspension with heat  
New joystick consoles - now adjustable in height by pushing the button  
Integrated seat with consoles - reduce the operator fatigue

#### 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

# 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.

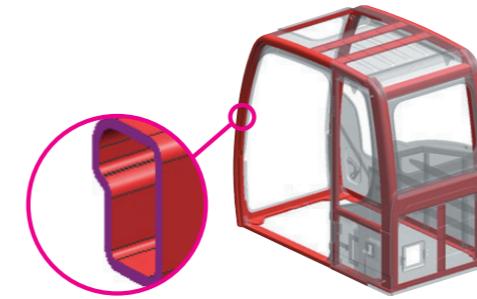
# PERFORMANCE

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



## 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.



## 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 optional ROPS(Roll Over Protective Structure) cab can be equipped to enhance operator safety.

## Cummins QSB6.7 Engine

QSB6.7 engine above 174 hp (130 kW) meet Tier 4 Interim/Stage III B emissions regulation with the combination of a proven cooled-EGR system, High Pressure Common Rail (HPCR) fuel system, Cummins Diesel Oxidation Catalyst and Particulate Filter. The QSB6.7 is also complemented by patented VGT™ Turbocharger, which continuously varies the airflow boost to precisely match engine rpm and load demands for optimal performance. This engine features the Cummins Direct Flow™ air filter, which has a smaller profile than radial filters. The result is an engine that fits into existing equipment, delivers better performance with faster cycle times and better fuel economy than the previous model.



# 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.



## 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 9A series cabin you can easily adjust the seat, console and armrest settings to best suit your comfort level. The seat integrated with console absorb console vibration by seat suspension and reduce operator's fatigue. New joystick consoles are adjustable in height by pushing the button. Other preference settings that add to overall operator comfort include the fully automatic high capacity airconditioning system, transparent polycarbonate glass sun roof, large and easy to control sun visor, 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



# PROFITABILITY

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



\*Photo may include optional equipment.

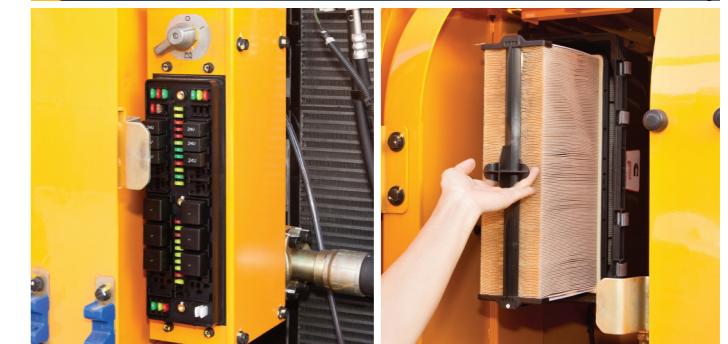
## Fuel Efficiency

9A series excavators are engineered to be extremely fuel efficient. New innovations like the variable speed fan clutch, 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.



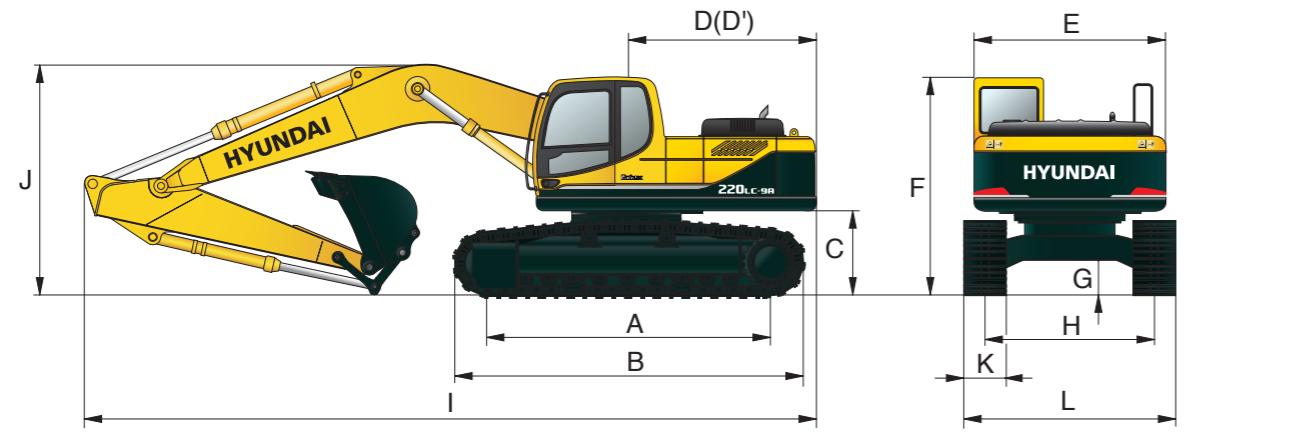
## Long-Life Components

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.



## Dimensions & Working Range

### R220LC-9A DIMENSIONS

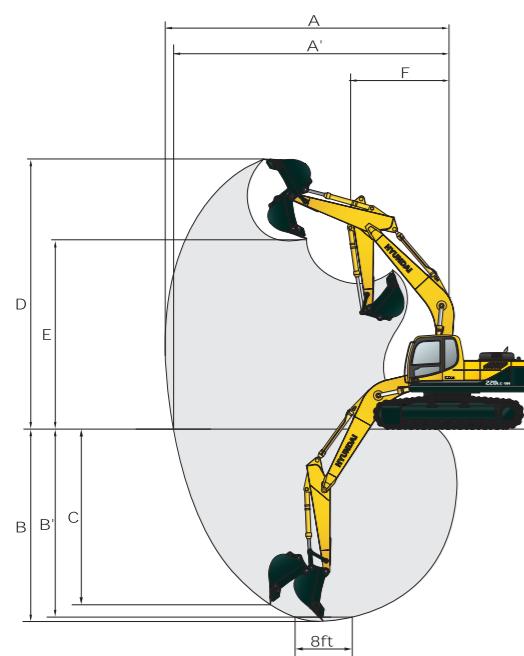


Unit : mm (ft · in)

A Tumbler distance	3,650 (11' 12")
B Overall length of crawler	4,440 (14' 7")
C Ground clearance of counterweight	1,060 (3' 6")
D Tail swing radius	2,840 (9' 4")
D' Rear-end length	2,770 (9' 1")
E Overall width of upperstructure	2,740 (8' 12")
F Overall height of cab	2,920 (9' 7")
G Min. ground clearance	480 (1' 7")
H Track gauge	2,390 (7' 10")

Boom length	5,680 (18' 8")				8,200 (26' 11")
Arm length	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")	3,900 (12' 10")	6,300 (20' 8")
I Overall length	9,650 (31' 8")	9,570 (31' 5")	9,530 (31' 3")	9,520 (31' 3")	12,030 (39' 6")
J Overall height of boom	3,200 (10' 6")	3,110 (10' 2")	3,030 (9' 11")	3,480 (11' 5")	3,280 (10' 9")
K Track shoe width	600 (24")	700 (28")	800 (32")	900 (36")	
L Overall width	2,990 (9' 10")	3,090 (10' 2")	3,190 (10' 6")	3,290 (10' 10")	

### R220LC-9A WORKING RANGE

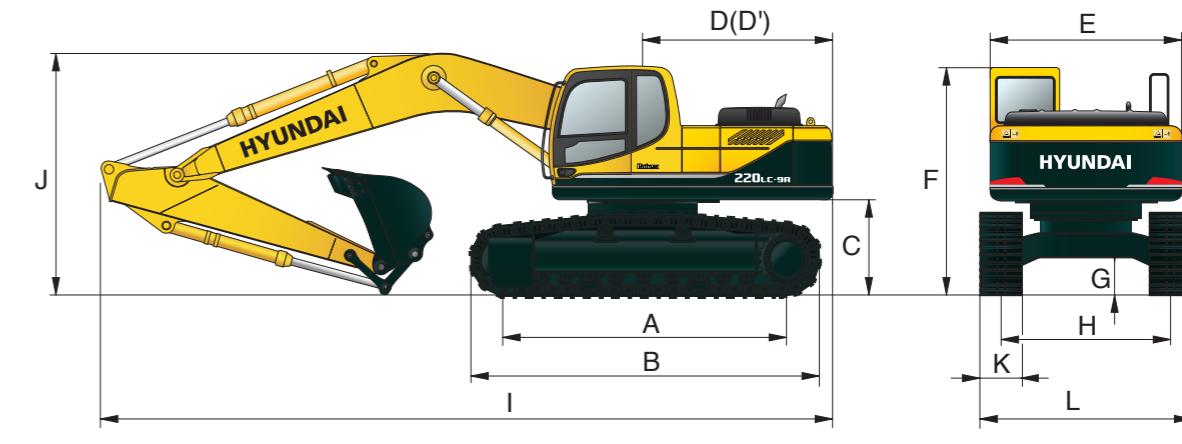


Unit : mm (ft · in)

Boom length	5,680 (18' 8")				8,200 (26' 11")
Arm length	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")	3,900 (12' 10")	6,300 (20' 8")
A Max. digging reach	9,140 (29' 12")	9,500 (31' 2")	9,980 (32' 9")	10,910 (35' 10")	15,220 (49' 11")
A' Max. digging reach on ground	8,960 (29' 5")	9,330 (30' 7")	9,820 (32' 3")	10,770 (35' 4")	15,120 (49' 7")
B Max. digging depth	5,820 (19' 1")	6,220 (20' 5")	6,730 (22' 1")	7,720 (25' 4")	11,760 (38' 7")
B' Max. digging depth (8' level)	5,580 (18' 4")	6,010 (19' 9")	6,560 (21' 6")	7,580 (24' 10")	11,650 (38' 3")
C Max. vertical wall digging depth	5,280 (17' 4")	5,720 (18' 9")	6,280 (20' 7")	7,240 (23' 9")	9,610 (31' 6")
D Max. digging height	9,140 (29' 12")	9,340 (30' 8")	9,600 (31' 6")	10,110 (33' 2")	12,550 (41' 2")
E Max. dumping height	6,330 (20' 9")	6,520 (21' 5")	6,780 (22' 3")	7,290 (23' 11")	10,280 (33' 9")
F Min. swing radius	3,750 (12' 4")	3,740 (12' 3")	3,740 (12' 3")	3,650 (11' 12")	4,870 (15' 12")

## Dimensions & Working Range

### R220LC-9A HIGH WALKER DIMENSIONS

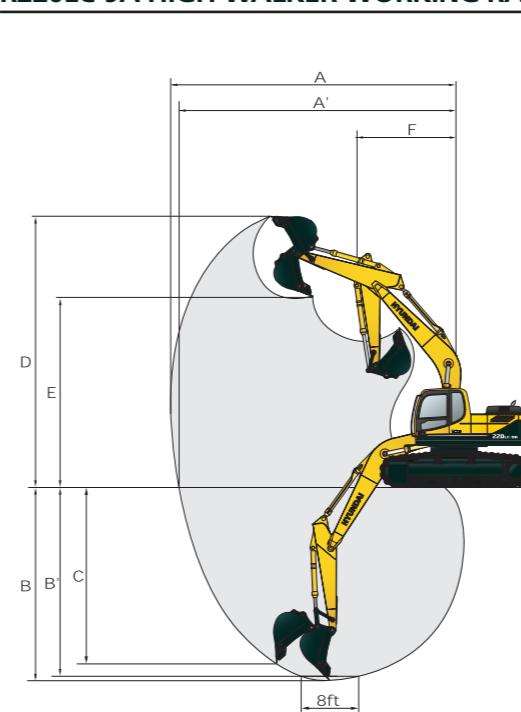


Unit : mm (ft · in)

A Tumbler distance	3,650 (11' 12")
B Overall length of crawler	4,440 (14' 7")
C Ground clearance of counterweight	1,240 (4' 1")
D Tail swing radius	2,840 (9' 4")
D' Rear-end length	2,770 (9' 1")
E Overall width of upperstructure	2,740 (8' 12")
F Overall height of cab	3,100 (10' 2")
G Min. ground clearance	660 (2' 2")
H Track gauge	2,790 (9' 2")

Boom length	5,680 (18' 8")			
Arm length	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")	3,900 (12' 10")
I Overall length	9,650 (31' 8")	9,550 (31' 4")	9,470 (31' 1")	9,560 (31' 4")
J Overall height of boom	3,290 (10' 10")	3,170 (10' 5")	3,060 (10' 0")	3,450 (11' 4")
K Track shoe width	Type	Triple grouser		Double grouser
Width	600 (24")	700 (28")	800 (32")	710 (28")
L Overall width		3,395 (11' 2")	3,495 (11' 6")	3,595 (11' 10")

### R220LC-9A HIGH WALKER WORKING RANGE



Unit : mm (ft · in)

Boom length	5,680 (18' 8")			
Arm length	2,000 (6' 7")	2,400 (7' 10")	2,920 (9' 7")	3,900 (12' 10")
A Max. digging reach	9,140 (29' 12")	9,500 (31' 2")	9,980 (32' 9")	10,910 (35' 10")
A' Max. digging reach on ground	8,920 (29' 3")	9,290 (30' 6")	9,820 (32' 3")	10,730 (35' 2")
B Max. digging depth	5,630 (18' 6")	6,010 (19' 9")	6,550 (21' 6")	7,530 (24' 8")
B' Max. digging depth (8' level)	5,390 (17' 8")	5,820 (19' 1")	6,380 (20' 11")	7,390 (24' 3")
C Max. vertical wall digging depth	5,090 (16' 8")	5,630 (18' 6")	6,100 (20' 0")	7,050 (23' 2")
D Max. digging height	9,330 (30' 7")	9,530 (31' 3")	9,780 (32' 1")	10,300 (33' 10")
E Max. dumping height	6,520 (21' 5")	6,710 (22' 0")	6,960 (22' 10")	7,480 (24' 6")
F Min. swing radius	3,750 (12' 4")	3,740 (12' 3")	3,740 (12' 3")	3,650 (11' 12")



