

R480LC-9S **SMART**

OPERATING WEIGHT: 49500 kgs

GROSS POWER : 353 HP @ 1900 rpm

BUCKET CAPACITY: 3.03m³



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!



*Photo may include optional equipment.

Robex 480LC-9

Machine Walk-Around

Engine Technology

Proven / reliable, fuel efficient Cummins Tier III QSM11 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 valve, 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.

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

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 Radio / USB player.



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 USB player, AM/FM stereo, 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.



*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

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

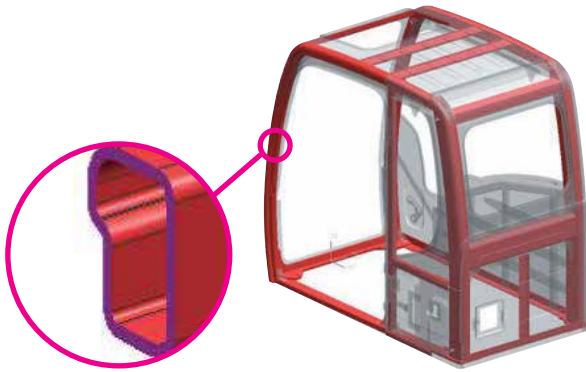
9 series is designed for maximum performance to keep the operator working productively.



*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.



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

CUMMINS QSM11 Engine

The Tier III compliant, six cylinder, turbo-charged, 4 cycle, water cooled, Cummins QSM11 diesel engine is built for power, reliability, efficiency and reduced emissions.

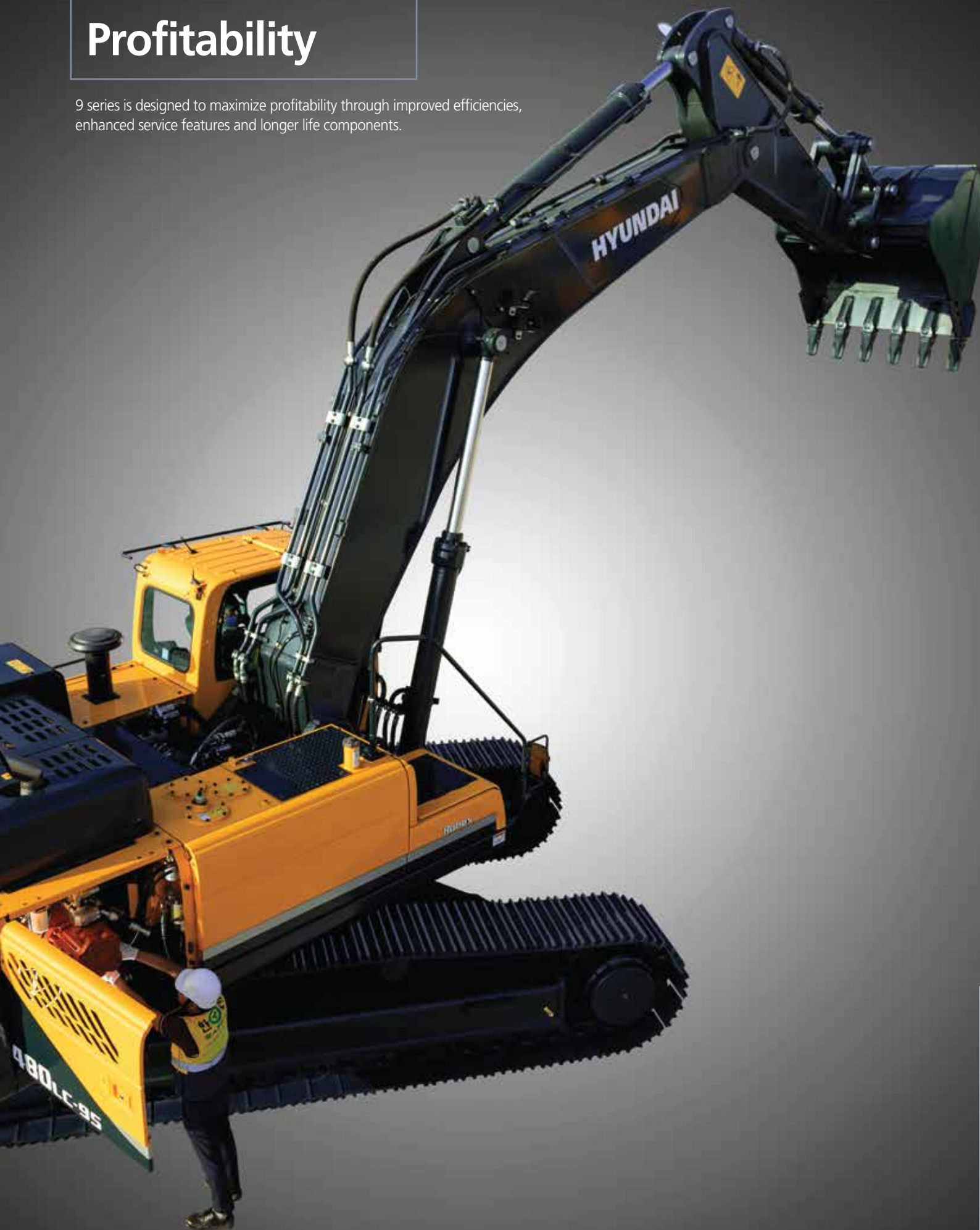
Heavy-duty strength

The QSM11 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 QSM11 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 QSM11 is built stronger to last longer.



Profitability

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



*Photo may include optional equipment.

Fuel Efficiency

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



Long-Life Components

9 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 QSM11	
Type		Water-cooled, 4-cycle Diesel, 6-Cylinder in-line, Direct injection, Turbocharged, Charger air cooled, Low emission	
Rated flywheel horsepower	SAE	J1995 (gross)	353HP (266kW)/ 1,900rpm
		J1349 (net)	342HP (255kW)/ 1,900rpm
	DIN	6271/1 (gross)	362PS (266kW)/ 1,900rpm
		6271/1 (net)	347PS (255kW)/ 1,900rpm
Max. torque		170.8kgf-m (1,235lbf-ft)/1,400rpm	
Bore X stroke		125mm X 147mm (4.92" X 5.79")	
Piston displacement		10,800cc (659 in ³)	
Batteries		2 X 12V X 200AH	
Starting motor		24V, 7.2kW	
Alternator		24V, 70Amp	

HYDRAULIC SYSTEM

MAIN PUMP	
Type	Variable displacement tandem-axis piston pumps
Max. flow	2 X 370 L /min (97.7 US gpm / 81.4 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	330 kgf/cm ² (4,690 psi)
Travel	330 kgf/cm ² (4,690 psi)
Power boost (boom, arm, bucket)	360 kgf/cm ² (5,120 psi)
Swing circuit	285 kgf/cm ² (4,050 psi)
Pilot circuit	40 kgf/cm ² (570 psi)
Service valve	Installed

HYDRAULIC CYLINDERS	
No. of cylinder bore X stroke	Boom: 2-170 X 1,570 mm (6.7" X 61.8")
	Arm: 1-190 X 1,820 mm (7.5" X 71.7")
	Bucket: 1-160 X 1,370 mm (6.3" X 53.9")

DRIVES & BRAKES

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor, in-shoe design
Reduction system	Planetary reduction gear
Max. drawbar pull	38,500 kgf (84,800 lbf)
Max. travel speed (high / low)	5.0 km/hr (3.1 mph) / 3.2 km/hr (2.0 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

SWING SYSTEM

Swing motor	Axial pistons motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Multi wet disc
Swing speed	9.0 rpm

COOLANT & LUBRICANT CAPACITY

Re-filling	liter
Fuel tank	621
Engine coolant	50
Engine oil	37
Swing device - gear oil	5
Final drive (each) - gear oil	5
Hydraulic system (including tank)	380
Hydraulic tank	262

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 triple grouser shoes.

Center frame	X-leg type
Track frame	Pentagonal box type
No. of shoes on each side	53
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 6,550mm (21' 6") Heavy duty boom, 2,550mm (8' 4") Heavy duty arm, SAE heaped 3.03m³ (3.92 yd³) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, and all standard equipments.

MAJOR COMPONENT WEIGHT	
Upper structure	10,940kg (24,120lb)
Boom (with arm cylinder)	4,110kg (9,060lb)

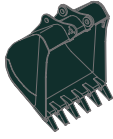
OPERATING WEIGHT			
Shoes		Operating weight	Ground pressure
Type	Width mm (in)	kg (lb)	kgf/cm ² (psi)
Triple grouser	600 mm (24")	49,500 (106,040)	0.83 (11.80)

AIR CONDITIONING SYSTEM

The air condition system for the machine contains the fluorinated greenhouse gas with global warming potential of R134a. (Global Warming Potential : 1430)
The system hold 0.85kg refrigerant consisting of a CO₂ equivalent 1.22kg metric tonne. For more information, Please refer to the manual.

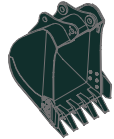
BUCKETS

All buckets are welded with high-strength steel.

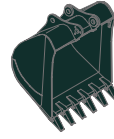


SAE
heaped
m³ (yd³)

GP
3.03



H/D
2.79



Rock
2.43

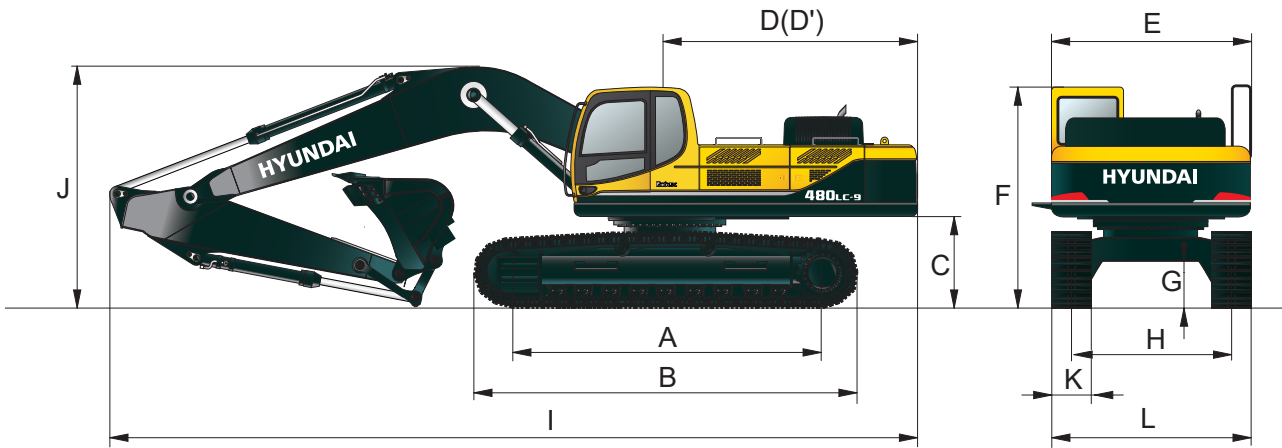
Capacity m ³ (yd ³)	SAE heaped	CECE heaped	Width mm (in)	Weight kg (lb)	Tooth EA	Recommendation mm (ft.in)
						65,500 (21' 6") Boom 2,550 (8' 4") Arm
3.03 (3.92)	3.03 (3.92)	2.70 (3.53)	1905 (76")	2460 (6420)	6	■
2.79 (3.65)	2.79 (3.65)	2.47 (3.23)	1785 (70")	2630 (5800)	6	●
2.43 (3.18)	2.43 (3.18)	2.11 (2.76)	1750 (69")	2730 (6020)	6	●

- : Applicable for materials with density of 1,800 kg /m³ (3,000 lb/ yd³) or less
- : Applicable for materials with density of 1,600 kg /m³ (2,700 lb/ yd³) or less

DIGGING FORCE

Boom	Length	mm (ft.in)	6,550
Arm	Length	mm (ft.in)	2,550 (8' 4")
Bucket digging force	SAE	kN	211.8 [231.0]
		kgf	21,600 [23,560]
		lbf	47,620 [51,940]
	ISO	kN	246.2 [268.5]
		kgf	25,100 [27,380]
		lbf	55,340 [60,360]
Arm crowd force	SAE	kN	232.7 [253.9]
		kgf	23,730 [25,890]
		lbf	52,320 [57,080]
	ISO	kN	243.2 [265.3]
		kgf	24,800 [27,050]
		lbf	54,670 [59,630]

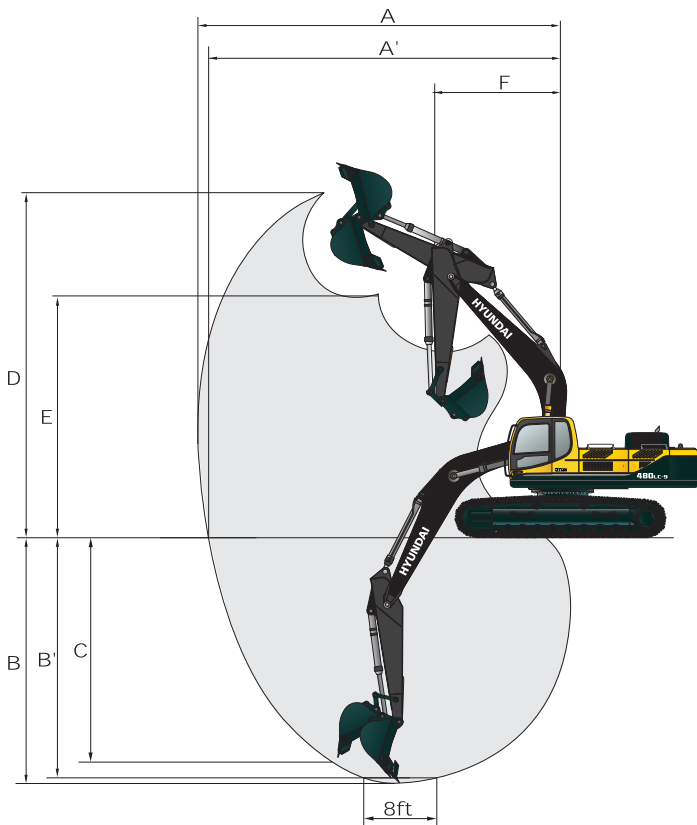
Dimensions & Working Range



A	Tumbler distance	4,470 (14' 8")
B	Overall length of crawler	5,462 (17' 11")
C	Ground clearance of counterweight	1,295 (4' 3")
D	Tail swing radius	3,750 (12' 4")
D'	Rear-end length	3,695 (12' 1")
E	Overall width of upperstructure	2,980 (9' 9")
F	Overall height of cab	3,190 (10' 6")
G	Min. ground clearance	555 (1' 10")
H	Track gauge	2,740 (9' 0")

	Boom length	6,550 (21' 6")
	Arm length	2,550 (8' 4")
I	Overall length	11,630 (38' 2")
J	Overall height of boom	3,750 (12' 4")
K	Track shoe width	600 (24")
L	Overall width	3,340 (10' 11")



R480LC-9 WORKING RANGE















	Boom length	6,550 (21' 6")
	Arm length	2,550 (8' 4")
A	Max. digging reach	10,860 (35' 8")
A'	Max. digging reach on ground	10,640 (34' 11")
B	Max. digging depth	6,570 (21' 7")
B'	Max. digging depth (8' level)	6,400 (21' 0")
C	Max. vertical wall digging depth	5,610 (18' 5")
D	Max. digging height	10,580 (34' 9")
E	Max. dumping height	7,070 (23' 2")
F	Min. swing radius	4,390 (14' 8")

Lifting Capacity

R480LC-9

 Rating over-front  Rating over-side or 360 degree

Boom : 6.55m (21' 6") / Arm : 2.55 m (7' 10") / Bucket : 3.03 m³ (2.81 yd³) SAE heaped / Shoe : 600mm (24") triple grouser

Load point height m (ft)	Load radius										At max. reach			
	3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach m (ft)	
														
9.0 m (29.5 ft)	kg											*12650	*12650	5.72
	lb											*27890	*27890	(18.8)
7.5 m (24.6 ft)	kg					*13270	*13270					*11430	11210	7.17
	lb					*29260	*29260					*25200	24710	(23.5)
6.0 m (19.7 ft)	kg					*14050	*14050	*12530	10340			*11030	9100	8.09
	lb					*30970	*30970	*27620	22800			*24320	20060	(26.5)
4.5 m (14.8 ft)	kg			*20440	*20440	*15540	14070	*13090	10050			*11080	8020	8.65
	lb			*45060	*45060	*34260	31020	*28860	22160			*24430	17680	(28.4)
3.0 m (9.8 ft)	kg			*23270	19970	*17130	13320	*13820	9690			*11510	7480	8.92
	lb			*51300	44030	*37770	29370	*30470	21360			*25380	16490	(29.3)
1.5 m (4.9 ft)	kg					*18140	12740	*14330	9370			*11910	7320	8.93
	lb					*39990	29370	*31590	20660			*26260	16140	(29.3)
0.0 m (0.0 ft)	kg			*22570	18910	*18170	12430	*14290	9160			*11880	7520	8.69
	lb			*49760	41690	*40060	27400	*31500	20190			*26190	16580	(28.5)
-1.5 m (-4.9 ft)	kg	*16270	*16270	*21830	18970	*17110	12360	*13360	9120			*11710	8190	8.16
	lb	*35870	*35870	*48130	41820	*37720	27250	*29450	20110			*25820	18060	(26.8)
-3.0 m (-9.8 ft)	kg	*21500	*21500	*18470	*18470	*14650	12520					*11130	9670	7.28
	lb	*47400	*47400	*40720	*40720	*32300	27600					*24540	21320	(23.9)
-4.5 m (-14.8 ft)	kg			*12790	*12790							*9300	*9300	5.91
	lb			*28200	*28200							*20500	*20500	(19.4)

- Lifting capacity is based on 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 Lift-point is bucket pivot mounting pin on the arm(without bucket mass).
- (*) indicates the load limited by hydraulic capacity.

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
Radio & USB player
Handsfree mobile phone system with USB
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
Three outside rearview mirrors
Mechanical suspension seat with heater
Pilot-operated slidable joystick
Console box height adjust system
Four front working lights, one rear light
Electric horn
Batteries (2 x 12V x 200 AH)
Battery master switch
Removable clean-out dust net for cooler
Automatic swing brake
Automatic fuel line deaeration
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
Travel alarm
Standard Hi-mate (Remote Management System)
Standard Tool kit

Boom
Standard boom (6.55m,21'6")
Arm
Standard arm (2.55m)

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
Counterweight
9,700kg (21,380lb)
10,200kg (22,490lb)
10,700kg (23,590lb)
Climate control
Heater only
Cabin FOPS/FOG (ISO 10262 Level II)
FOPS (Falling Object Protective Structure)
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
Lower frame under cover (Additional)
Pre-heating system, coolant
Operator suit
Rearview camera
Seat
Adjustable air suspension seat
Adjustable air suspension seat with heater
Mechanical suspension seat
Pattern change valve (2 patterns)
Air compressor

- * 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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