

Gross Power
357HP (266 kW) at 1,900 rpm

Net Power
342HP (255 kW) at 1,900 rpm

Bucket Capacity
1.00 ~ 3.03m³

Operating Weight
51,000 kg / 122,440 lb

Robex R520LC-9

With Tier 3 Engine installed



▲ HYUNDAI CONSTRUCTION EQUIPMENT

Head Office(Sales Office)

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PLEASE CONTACT

2019. DEC.



*Photo may include optional equipment.

PRIDE AT WORK

Robex 520LC-9

Hyundai Construction Equipment 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!

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 seat (standard) or optional air ride suspension seat with heater
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



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.



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.



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.



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.



PRECISION

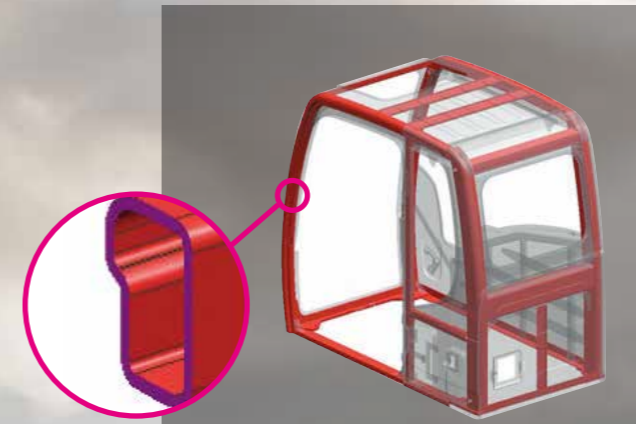
Innovative hydraulic system technologies make the 9 series excavator fast, smooth and easy to control.





PERFORMANCE

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



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.

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.



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.



*Photo may include optional equipment.



PROFITABILITY

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



HiMATE

Option

IT'S CONVENIENT, EASY AND VALUABLE

Hi-MATE Hyundai's newly developed remote management system, utilizes GPS-satellite technology to provide customers with the highest level of service and product support available. Hi-MATE enables users to remotely evaluate machine performance, access diagnostic information, and verify machine locations at the touch of a button.

WHAT IS BENEFITS



Increase Productivity

It helps you operate machines in efficient. You can check the difference between total engine hours and actual working hours. See how productive your machines are and plan any required cost saving solutions. Hi-MATE offers working information such as working / idling hours, fuel consumption and rate.



Convenient and Easy Monitoring

There is nothing much to do to monitor your machines. Just log on to the Hi-MATE website or mobile application. Hi-MATE allows you to watch your machines whenever and wherever you are.



Security

Protect your machines from theft or unauthorized usage with Hi-MATE. If the machine moves out of the Geo-fence boundary, you will get alerts.

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.



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.



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.



Photo may include optional equipment

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 horse power	SAE	J1995(gross)	357HP (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	171kgf-m (1,236lbf-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
Rated 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 X1,570 mm (6.7" X 61.8")
	Arm: 1-190 X 1,820 mm (7.5" X 71.7")
	Bucket: 1-170 X 1,370 mm (6.7" 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 (82,000 lbf)
Max. travel speed (high / low)	5.0 km/hr (3.3 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 piston 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	US gal	UK gal
Fuel tank	621.0	164.0	136.6
Engine coolant	45.0	11.9	9.9
Engine oil	37.9	10.0	8.3
Swing devic	5.0	1.3	1.1
Final drive (each)	5.0	1.3	1.1
Hydraulic system (including tank)	380.0	100.4	83.6
Hydraulic tank	262.0	69.2	57.6

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	53
No. of carrier rollers on each side	3
No. of track rollers on each side	9
No. of rail guards on each side	2

OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 7,060mm (23' 2") boom, 3,380mm (11' 1") arm, SAE heaped 2.15m³ (2.81 yd³) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, and all standard equipments.

MAJOR COMPONENT WEIGHT

Upperstructure	11,210kg (24,710lb)
Boom (with arm cylinder)	4,140kg (9,130lb)

OPERATING WEIGHT

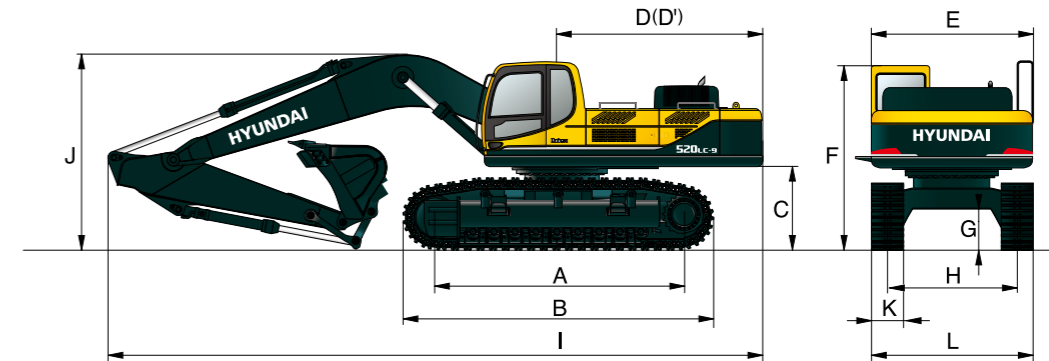
Type	Width mm (in)	Operating weight	
		kg (lb)	kgf/cm ² (psi)
Triple grouser	600 mm (24")	51,000 (112,440)	0.88 (12.51)
	700 mm (28")	51,540 (113,630)	0.76 (10.81)
	750 mm (30")	51,810 (114,220)	0.72 (10.24)
Double grouser	600 mm (24")	51,000 (112,440)	0.88 (12.51)
	700 mm (28")	51,540 (113,630)	0.76 (10.81)

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 0.75kg refrigerant consisting of a CO2 equivalent 1.07kg metric tonne.
For more information, Please refer to the manual.

DIMENSIONS & WORKING RANGE

R520LC-9 DIMENSIONS

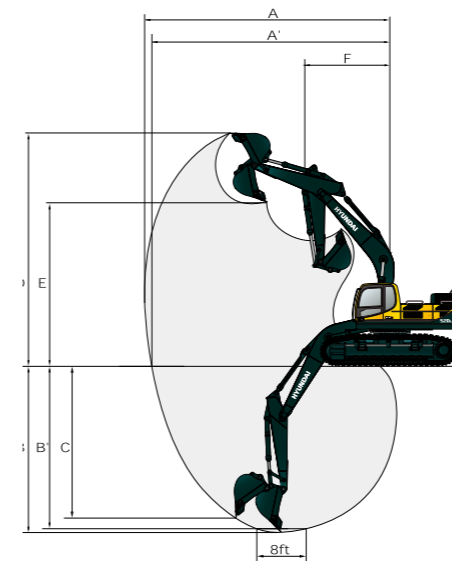


Unit : mm (ft - in)

A Tumbler distance	4,470 (14' 8")
B Overall length of crawler	5,460 (17' 11")
C Ground clearance of counterweight	1,500 (4' 11")
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	3,400 (11' 2")
G Min. ground clearance	770 (2' 6")
H Track gauge (Extended/Retracted)	2,940 (9' 8") / 2,380 (7' 10")

Boom length	7,060 (23' 2")				6,550 (21' 6")	9,000 (29' 6")	10,000 (32' 10")
Arm length	2,400 (7' 10")	2,900 (9' 6")	3,380 (11' 1")	4,000 (13' 1")	2,400 (7' 10")	5,850 (19' 2")	6,850 (22' 6")
I Overall length	12,280 (40' 3")	12,180 (40' 0")	12,060 (39' 7")	12,050 (39' 6")	11,780 (38' 8")	13,800 (45' 3")	14,470 (47' 6")
J Overall height of boom	3,970 (13' 0")	3,880 (12' 9")	3,850 (12' 8")	4,100 (13' 5")	4,100 (13' 5")	5,190 (17' 0")	5,860 (19' 3")
K Track shoe width	600 (24")	700 (28")	750 (30")	800 (32")			
L Overall width	Extended	3,540 (11' 7")	3,640 (11' 11")	3,690 (12' 1")	3,740 (12' 3")		
	Retracted	2,990 (9' 10")	3,080 (10' 1")	3,130 (10' 3")	3,180 (10' 5")		

R520LC-9 WORKING RANGE



Unit : mm (ft - in)

Boom length	7,060 (23' 2")				6,550 (21' 6")	9,000 (29' 6")	10,000 (32' 10")
Arm length	2,400 (7' 10")	2,900 (9' 6")	3,380 (11' 1")	4,000 (13' 1")	2,400 (7' 10")	5,850 (19' 2")	6,850 (22' 6")
A Max. digging reach	11,140 (36' 7")	11,530 (37' 10")	12,080 (39' 8")	12,640 (41' 6")	10,590 (34' 9")	16,280 (53' 5")	18,170 (59' 7")
A' Max. digging reach on ground	10,890 (35' 9")	11,290 (37' 0")	11,840 (38' 10")	12,420 (40' 9")	10,320 (33' 10")	16,100 (52' 10")	18,010 (59' 1")
B Max. digging depth	6,610 (21' 8")	7,110 (23' 4")	7,590 (24' 11")	8,210 (26' 11")	6,130 (20' 1")	11,380 (37' 4")	13,010 (42' 8")
B' Max. digging depth (8' level)	6,430 (21' 1")	6,940 (22' 9")	7,440 (24' 5")	8,080 (26' 6")	5,950 (19' 6")	11,280 (37' 0")	12,930 (42' 5")
C Max. vertical wall digging depth	4,880 (16' 0")	4,780 (15' 8")	5,470 (17' 11")	5,980 (19' 7")	4,390 (14' 5")	10,070 (33' 0")	11,640 (38' 2")
D Max. digging height	10,640 (34' 11")	10,610 (34' 10")	11,080 (36' 4")	11,290 (37' 0")	10,260 (33' 8")	13,930 (45' 8")	15,150 (49' 8")
E Max. dumping height	7,290 (23' 11")	7,350 (24' 1")	7,760 (25' 6")	7,980 (26' 2")	6,920 (22' 8")	10,530 (34' 7")	11,760 (38' 7")
F Min. swing radius	5,110 (16' 9")	4,910 (16' 1")	4,830 (15' 10")	4,910 (16' 1")	4,650 (15' 3")	5,940 (19' 6")	6,510 (21' 4")

STANDARD / OPTIONAL

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
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, 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

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
Booms
Heavy duty boom (7.06m, 23'2")
Short boom (6.55m, 21'6")
Long boom (9.0m, 29'6")
Long reach boom (10m, 32'10")
Arms
Heavy duty arm (3.38m, 11'1")
Super short arm (2.4m, 7'10")
Short arm (2.9m, 9'6")
Long arm (4.0m, 13'1")
Long arm (5.85m, 19'2")
Long reach arm (6.85m, 22'6")
Counterweight
10,200kg (22,490 lb)
10,700kg (23,590 lb)
11,700kg (25,790 lb)
Climate control
Wire net
Fine net
Cabin roof-steel cover
Cabin lights
Cabin front window rain guard
Track shoes
Triple grousers shoe (700mm, 28")
Triple grousers shoe (750mm, 30")
Triple grousers shoe (800mm, 32")
Double grousers shoe (600mm, 24")
Double grousers shoe (700mm, 28")
Heavy duty track shoe (600mm, 24")
Full track rail guard
Lower frame under cover (Additional)
Tool kit
Operator suit
Rearview camera
Seat
Adjustable air suspension seat
Adjustable air suspension seat with heater
Mechanical suspension seat
Pattern change valve (2 patterns)
Oil washed air cleaner
Oil bath precleaner
Hi-mate (Remote Management System)
Automatic lubrication

* 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.

MEMO