

SUMITOMO

SH210F-5

MACAN 

SUMITOMO

The four-hundred year history of Sumitomo

SUMITOMO is one of the largest business groups in Japan, tracing its roots back to the late 1600's when they started a mining and copper smelting business, and since then have expanded and diversified their business operations on a continuing basis.

Winning Two Major Awards

The high-performance energy conservation capabilities of the "LEGEST" (SH200-5) hydraulic excavator have been widely appraised. It received the 2007 "Grand Award for Energy Conservation", awarded by the Japanese Ministry of Economy, Trade and Industry, and was also awarded the 2007 "Good Design Award".



PT. SUMITOMO S.H.I. CONSTRUCTION MACHINERY INDONESIA

JL. Maligi VIII Lot T-1, Kawasan Industri KIIC Telukjambe Barat, Karawang, Jawa Barat 41361
Tel : +62-21-8910-8686 Fax : +62-267-863-1790



PT. SUMITOMO S.H.I. CONSTRUCTION MACHINERY SOUTHEAST ASIA

Wisma GKBI 16th floor, Jl. Jend. Sudirman No.28, Jakarta 10210
Tel : +62-21-5795-2254 Fax : +62-21-5795-1210

<http://www.sumitomokenki.com/>

We are constantly improving our products and therefore reserve the right to change designs and specifications without notice.
Illustrations may include optional equipment and accessories and may not include all standard equipment.



TCIM Sdn Bhd.

Headquarters

Lot 29, Jalan Delima 1/3, Subang Hi-Tech Ind. Park, 40000 Shah Alam, Selangor Darul Ehsan
Marketing : 03-5633 1035 Parts & Service : 03-5636 4786

Kuching Regional

Lot 1034, Section 66, KTLD, Pending Ind. Estate, Jalan Tenun, Off Jalan Tenaga, 93450 Kuching, Sarawak
Marketing : 082-346 661 Parts & Service : 082-346 662

Kota Kinabalu Regional

Lot SD1, Lorong Industrial Warisan 1, Taman Ind. Warisan Indah, Batu 7, Jalan Tuaran, 88450 Kota Kinabalu, Sabah
Marketing : 088-383 296 Parts & Service : 088-383 295



MALAYSIA SPEC

FAST, STRONG & TOUGH

MACAN



LEGEST

Legest = Legerity + Strong

Legest is a coined word which represents
legerity and strong performance of
SUMITOMO hydraulic excavators.



ENGINEERED IN JAPAN

The world knows that Japanese designed and engineered products represent the highest quality, especially for Industrial Products. The hydraulic excavator is no exception when a totally integrated concept is required in design work involving key components, manufacturing engineering, and product quality assurance in the factory. SUMITOMO hydraulic excavators are designed and manufactured today to meet the global demands of our many customers with the concept of Performance, Reliability, and Fuel Efficiency foremost in our minds. This proven Japanese technology and quality gives SUMITOMO excavator customers total peace of mind and provide a complete solution for the demands of the construction industry.

Guarding (Optional)

House and Cab structure has been designed to prevent bents from outer pressure, with minimized effects on the machine ability.

PROFITABILITY

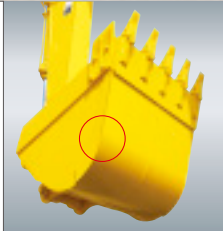
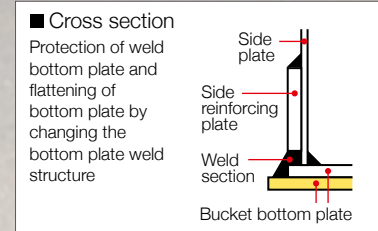


The main body of the machine is designed bent and breakage resistant with variable guardings.

1 Cab guard *View from above Close Open Fixed fence protected Overhead windows lessened the noise while driving by bolting. Even without the fence, the structure provides safety.	2 Reinforced side frames Structures designed to endure against pressures from side ways.	3 Step guard Stepguards are installed and supported by newly added Ribs.	4 Cab right guard	11 HD Undercarrriage under cover	12 HD Upper under cover
5 Housing guard (right/left) Photo:left Lower half of the house guards are plated.	6 Guard stopper House guard is equipped with stopper, preventing inward bents from pressures from sideway	7 Handrail guard Cab guards are equipped to cover the handrails.	8 Three points supported frame Right guard is fixed to the house with 3 pipes.	9 Guard bolting	13 Reinforced idler frame
				10 Engine hood guard	14 Upper roller reinforced
					15 HD track link
					16 Center guard (triple)

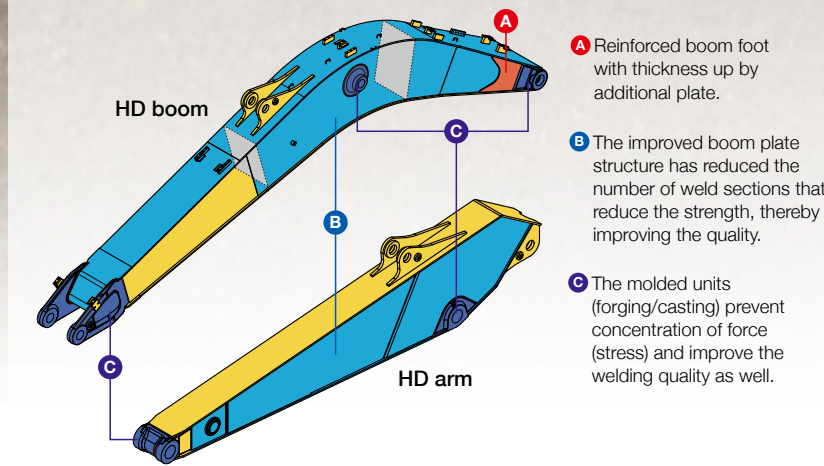
Bucket

A one piece wear plate covers the weldment area to increase the wear life of the bucket.



Boom & Arm

- 1. The boom structure is now 2 pieces instead of 3.
- 2. High strength castings are used for the boom base and arm end.
- 3. One size larger piping is used for the boom boss area.
- 4. Thicker steel plate is used for added strength.





MOBILITY

Greater productivity and increased working efficiency

Improve fuel efficiency by 3% **Achieve even better fuel efficiency via newly-developed BES.** BES=Boom down Energy Save

The fuel consumption may vary from time to time depending on site and working conditions, operator skill and other circumstances.
Fuel consumption saving compared to SH210-5 previous model (H mode)

Quick and Smooth Control Response

A total review of the hydraulic circuit and miscellaneous hydraulic settings guarantee speedy and precise operation through a smooth control lever.

Multifunctioning Capability for Upper and Travel Operation

With the new hydraulic circuit, travel motion slowdown will not be experienced even during the combined operation of attachment and swing motion when traveling.

Automatic Power Boost

The digging power increases automatically in quick response to the working conditions without switching operations during heavy-duty digging work. It is SUMITOMO's original design and continues for 8 seconds.

SP (Speed Priority mode)

SP "Speed Priority" mode has been developed, which is not available in either the competitors' models or in our previous model. This offers greater productivity in its class with improved economical fuel efficiency even in comparison with the Heavy mode in our previous model. In addition, the throttle control is simple to use.



Mode Selection by Throttle

Mode selection by pressing the button in our previous model sometimes cause inconveniences for the operator. The throttle control system has been upgraded and the new system "A" mode which stands for "Adjustment Mode" now covers the 3 previous modes of "Auto, Standard and Light". In addition there is "H" (Heavy) mode and "SP" (Speed Priority) mode, and the hydrostatic pump oil flow will be regulated automatically in each of the 3 modes respectively.

The SP mode is added to the operation mode. Furthermore, the A (Adjustment) mode is added to the SP and H modes, respectively.



Throttle knob position	1	2	3	4~8	9~15
Engine speed	1800	1700	1600	1599~1300	1299~1000
Operation mode	SP	H	A		
Automatic power boost	Automatic			Constant	

		Reduction in fuel consumption by 15%	SP	SPEED PRIORITY
H	HEAVY Speed priority		H	HEAVY Simultaneous pursuit of speed and fuel efficiency
A	AUTO Simultaneous pursuit of speed and fuel efficiency	Reduction in fuel consumption by 20%	A (13 steps)	ADJUSTMENT Ordinary operation / Fine operation / Lifting operation
S	STANDARD Fuel priority			
L	LIGHT/LIFT Fine operation / Lifting operation	Reduction in fuel consumption by 5-10%		

SH200-3 (Previous model)

SH210F-5

Working speed

SPACE5
SUMITOMO Powerful And Clean Engine System

①Powerful ②Economy ③Clean ④Silent ⑤Strong

"SPACE5" is a new engine system consisting of five (5) special features.

A newly developed ISUZU engine 4HK1X produces greater output and torque, and far better fuel consumption than the previous model.



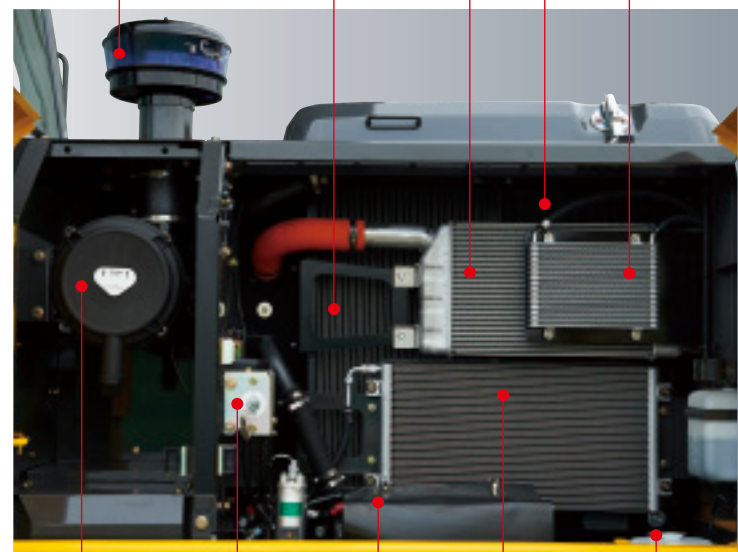
Ground Level Access to Engine Area Improves Preventative Maintenance.

Parts cleaning and maintenance are possible from the ground without climbing onto the upper structure of the excavator body.

Parallel installation of radiator and oil cooler

A space provided at the front of the intercooler and the tilting condenser facilitates cleaning. Not only serviceability, but also cooling efficiency is also improved by parallel installation. This enables fresh air intake by the radiator, which ensures efficient heat release.

Pre air cleaner Oil cooler Inter-cooler Radiator Fuel cooler

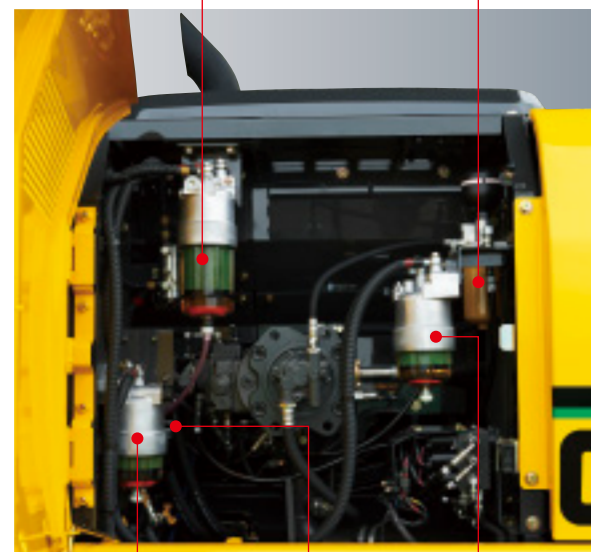


Air cleaner Battery disconnect switch Battery Tilting condenser Window screen washer bottle

Three fuel filters prevent fuel clogging

By adding one more fuel pre filter, three fuel filters are equipped in total as a standard equipment to reduce trouble due to fuel clogging. In addition, the fuel and oil filters are installed at ground-accessible location to facilitate replacement.

Pre fuel filter(with water separator) Pilot filter



Additional fuel filter (with water separator) Engine oil filter Main fuel filter (with water separator)

MAINTENANCE

EMS (Easy Maintenance System) as Standard

SUMITOMO unique design

SUMITOMO's new improved EMS keeps the pins and bushes fully lubricated at all times and prevents rattling. This system significantly extends the service life of the pins and bushes.

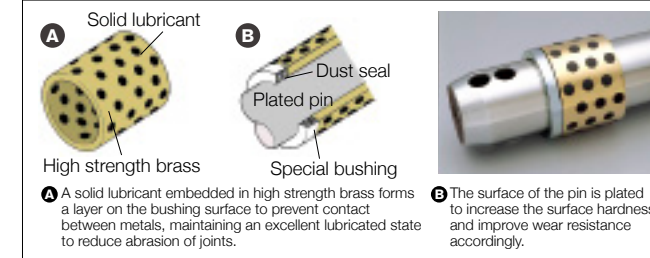
The interval of greasing around the bucket is 250 hours, and for the other sections is 1,000 hours, keeping the joints lubricated for a long time and extending the service life of parts by reducing abrasion and rattling.

Steel EMS bushing



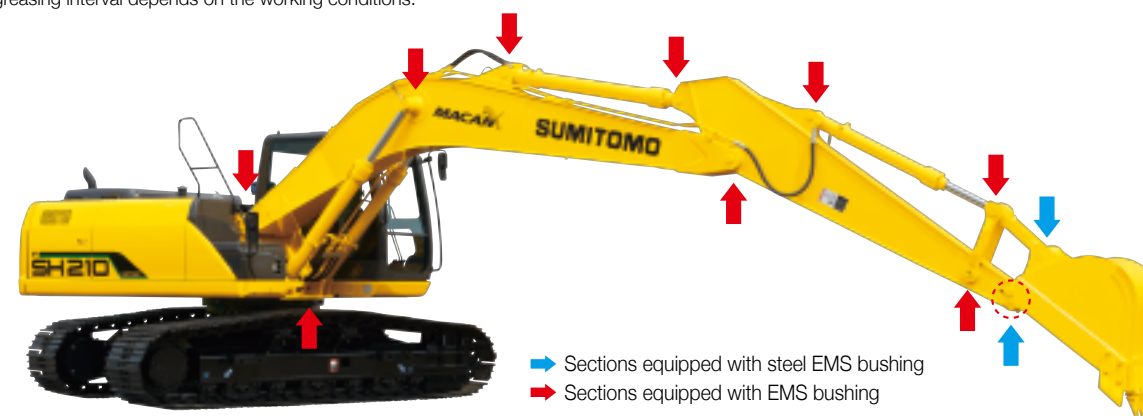
Steel EMS is installed around the bucket

EMS bushing



- Bucket greasing interval : **250 hours**
- Greasing interval for other sections : **1,000 hours**

* The greasing interval depends on the working conditions.



→ Sections equipped with steel EMS bushing
→ Sections equipped with EMS bushing

Precautionary use of EMS

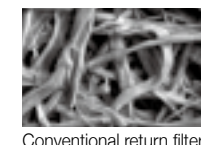
- ① Grease is enclosed, however, greasing is necessary every 1000 hours or six months depending on the level of dusting conditions.
- ② Greasing is also necessary after any components have been submerged underwater for prolonged periods.
- ③ Greasing is also recommended after use with hydraulic breakers, crushers or other high impact attachments such as Rock Saws etc.
- ④ Bucket pins should be cleaned thoroughly when removing or attaching new buckets.

High-Performance Return Filter

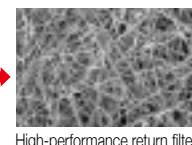
The hydraulic oil change interval is 5,000hours, and the return filter change interval is 2,000hours. One high performance return filter keeps the same level of filtering effect as a nephron.

- Hydraulic oil change : **5,000 hours**
- Life of filter : **2,000 hours**

* The oil and filter change interval depends on the working conditions.



Conventional return filter



High-performance return filter

The High-Performance Return Filter is made more precisely to condense the Nephron filter function.

Electric re-fuel pump storage

Newly added option of electric re-fuel pump makes it easy for fueling.



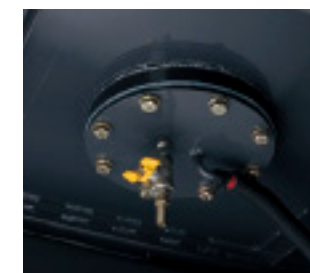
Fuel Tank

SUMITOMO unique design

Stainless steel is used for the strainer to prevent dust entering during re-fueling. Furthermore, a maintenance hole is provided to permit easy periodic maintenance.



Stainless steel strainer



Maintenance hole for cleaning

Engine Oil Drain Coupler

The engine oil pan is provided with a drain coupler. This makes it easier to do drain work and prevents oil from splashing with an attached drain hose.





SAFETY

All-round visibility increases safety during operation

SUMITOMO
unique design

In addition to the wide frontal view, the view on the right-hand side has also been made larger for enhanced safety.



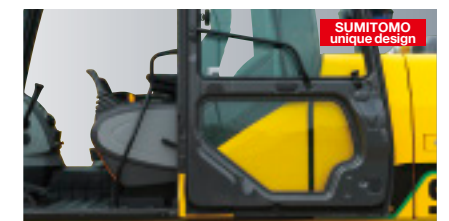
New Gate Lock Lever and Console Tilt-up Function

The console tilt-up function permits easy entry and exit.



Safe and Easy Entry into and Exit from the Cab

A large handrail for easy opening/closing of the door and a non-slip plate permits the operator to get in and out of the cab easily.



Large handrail



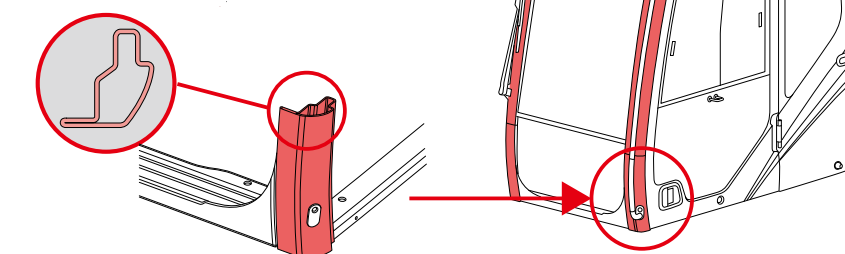
New non-slip plate

High-rigidity Cabin

The new cabin structure provides advanced operator protection.

- About **3 times** greater rigidity

* Dibandingkan dengan SH200-3



Simple to Read LCD Monitor and Switch Panel

In addition to the monitor that is easy to read during daytime as well as nighttime by changing the backlight to white, a simple and convenient universally designed switch panel is provided.



Anti-theft Alarm System

SUMITOMO's unique anti-theft system can be activated by your SUMITOMO distributor at the time of purchase.



Emergency Safety Switch

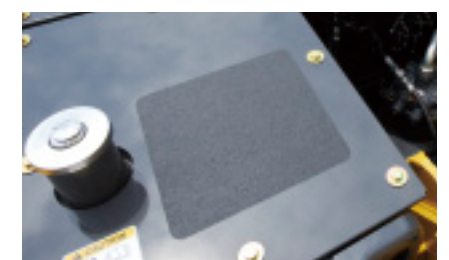


Easy Access to the Upper Structure

A large step and handrail, as well as a non-slip surface, minimizes the effort when climbing up or down the upper structure.



Front-right large step



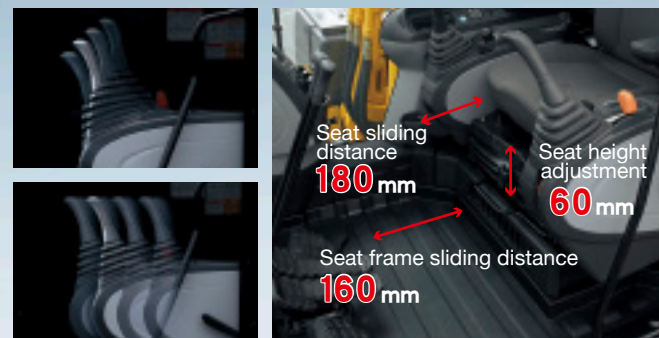
Non-slip tape



ISO-compliant large handrail

Operating Positions of Sliding Seat and Tilting Console

In addition to the tilting console that is adjustable in four steps vertically, the increased sliding distance ensures optimum working conditions.



COMFORT

SUMITOMO's Redesigned Cabin and Seat provide Optimum Operator Comfort

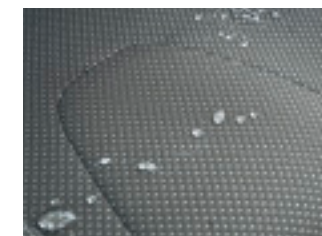
The seat reclining system allows the operator to fully recline the seat and to rest on site without removing the headrest.



New Water-repelling Operator's Seat

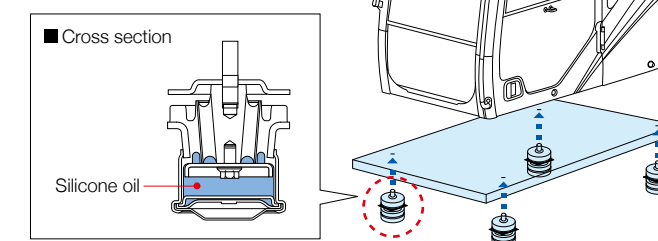
A rainwater and dust-resistant, water-repelling operator's seat has been adopted.

SUMITOMO
unique design



Fluid Filled Cab Mounts

Four fluid cab mounts reduce vibration and impact transmitted to the cabin, and improve the operators' sitting quality and reduce operator fatigue.



The Suspension Seat Eliminates Vibration



Air suspension (Option)

Automatic Air Conditioner with Round Outlets for Increased Comfort

Standard
from factory



The air outlets of the air conditioner are provided with round grills with wide adjusting angles. The efficiency of the air conditioner has been increased by pressurizing the cab to make it airtight, providing a comfortable space.

Operator friendly accessory



Clock

Auto-light

Cigarette lighter

Ashtray

Multi-function storage box



Rear luggage storage

Cool box

Cup holder

File holder

Mobile device holder

Other convenient storage boxes

Convenient One-touch Muting of AM/FM Radio

SUMITOMO
unique design

An AM/FM radio is provided as standard equipment. The mute switch on the left lever permits one-touch muting of the radio.



ISO-compliant Pressurized Cab to Prevent Dust Entering

The sealed and pressurized (sealing by pressure) cab prevents entry of dust from outside.

SH210F-5

Principle Specifications

		SH210F-5
Base	Boom length	5.70 m
	Arm length	2.94 m
	Bucket capacity (ISO heaped)	0.90 m³
	Std. operating weight (with guard)	21400 (22000) kg
Engine	Make & model	ISUZU 4HK1X
	Rated output	117.3 kw/1800 min ⁻¹
	Displacement	5193 cc
	Main pump	2 variable displacement axial piston pumps with regulating system
Hydraulic System	Max pressure (with auto power boost)	34.3 (36.8) Mpa
	Travel motor	Variable displacement axial piston motor
	Parking brake type	Mechanical disc brake
	Swing motor	Fixed displacement axial piston motor
Performance	Travel speed	5.6 / 3.4 km/h
	Traction force	201 kN (20496 kgf)
	Grade ability	70% <35°>
	Ground pressure (with guard)	36 (37) kPa
	Swing speed	11.5 min ⁻¹
	Bucket digging force (with power boost)	142 (152) kN
Other	Arm digging force (with power boost)	103 (110) kN
	Fuel tank	410 liter
	Hydraulic fluid tank	240 liter

Equipment Items

		SH210F-5
Base carrier	HD lower	⊙
	800mm triple grouser shoe	⊙
	HD track link	⊙
	Center guard (triple)	⊙
	Add on step	⊙
	HD Undercarriage under cover	⊙
	Upper structure guarding	●
Boom	HD Upper under cover	⊙
	HD boom	⊙
Arm	HD arm (2.94m)	⊙
Bucket	Without bucket	●
	HD bucket link	⊙
	0.90m³ Bucket (horizontal pin)	⊙
	0.90m³ Horn bucket (horizontal pin)	●
Interior / Cabin	0.90m³ Horn and sloped bucket (horizontal pin)	●
	Air conditioner	⊙
	AM/FM radio with USB port	⊙
	Suspension seat	⊙
Others	Cab-top light (double)	●
	Pre air cleaner	⊙
	Three fuel filters* (with water separator)	⊙
	Refuel pump	●
		Anti-theft alarm system
		⊙

*Main filter x1 pre filter x2

Bucket

		SH210F-5		
Bucket capacity (ISO/SAE/PCSA heaped)		0.90 m³	0.90 m³ Horn	0.90 m³ Horn and sloped
Bucket capacity (CECE heaped)		0.80 m³	0.80 m³	0.80 m³
Bucket type		Horizontal pin	Horizontal pin	Horizontal pin
Number of teeth		5	5	5
Width	With side cutter	1230 mm	1230 mm	1230 mm
Without horn and sloped	Without side cutter	1130 mm	1130 mm	1130 mm
Weight		674 kg	925 kg	1012 kg
Combination	HD arm 2.94 m	○	△	△

○ Suitable for materials with density up to 1,800 kg/m³ or less

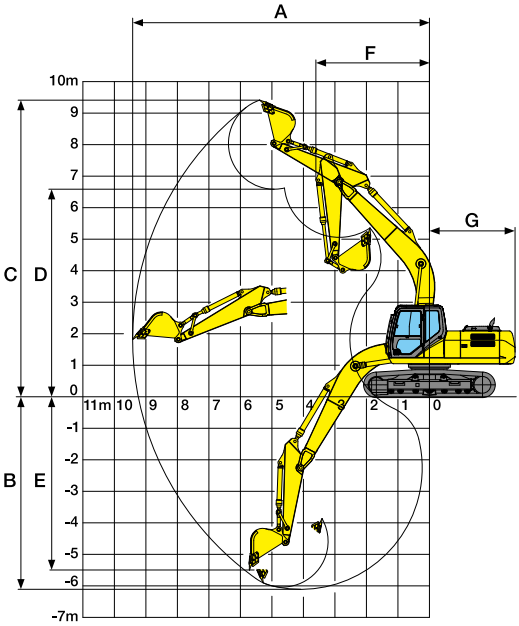
● Suitable for materials with density up to 2,000 kg/m³ or less

○ Suitable for materials with density up to 1,600 kg/m³ or less

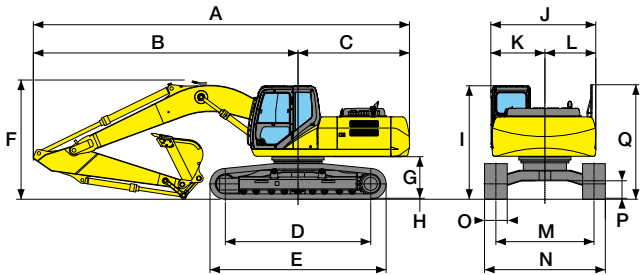
△ Suitable for materials with density up to 1,200 kg/m³ or less

Working Range

		SH210F-5
Arm length		2.94 m
Boom length		5.70 m
A	Max digging radius	9900 mm
B	Max digging depth	6650 mm
C	Max digging height	9610 mm
D	Max dumping height	6810 mm
E	Max vertical wall cut depth	5960 mm
F	Min. front swing radius	3600 mm
G	Rear end swing radius	2750 mm



Dimensions



		SH210F-5
Arm length		2.94 m
A	Overall length (with attachment)	9400 mm
B	Length from center of machine (to arm top)	6680 mm
C	Upper structure rear end radius	2720 mm
D	Center to center of wheels	3370 mm
E	Crawler overall length	4180 mm
F	Overall height (with attachment)	2970 mm
G	Clearance height under upper structure	1040 mm
H	Shoe lug height	26 mm
I	Cab height	2940 mm
J	Upper structure overall width	2770 mm
K	Width from center of machine (left side)	1430 mm
L	Width from center of machine (right side)	1340 mm
M	Track gauge	2200 mm
N	Undercarriage overall width	3000 mm
O	Std. Shoe width	800 mm
P	Minimum ground clearance	440 mm
Q	Handrail height	2960 mm

Standard equipment

[Cab/interior equipment]

- Steel rooftop window
- Tilting console
- Defroster
- Hot & cool box
- Water-repelling operator's seat
- Seat suspension
- Rise-up wiper (with intermittent operation function)
- Cup holder
- Clock
- Magazine rack
- Accessory case
- Floor mat
- Armrest & headrest
- Ashtray & cigar lighter
- Room light (Auto-OFF function)
- Coat hook

[Hydraulic system]

- SIH:S hydraulic system
- Operation mode (SP, H and A mode)
- Auto/one-touch idling
- Automatic 2-speed travel
- Automatic power boost
- Arm/boom/bucket reactivation circuit
- Automatic swing parking system
- High-performance return filter

[Safety equipment]

- Rearview mirror (left/right)
- Emergency escape tool
- Winding seat belt
- Gate lock lever
- Travel alarm (with on and off switch)
- Engine room firewall
- Fan guard
- Engine emergency stop switch
- Tropical house

[Others]

- EMS
- Long-life hydraulic oil
- Two lights (main unit and left of boom)
- Double-element air cleaner
- Grease-enclosed track link
- Bucket rattling control mechanism
- Large tool box
- A set of tools
- ISO controlling system
- LLC (55%)