

# SUMITOMO

## SH 225X MINIMUM SWING RADIUS

**LEGEST**



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Illustrations may include optional equipment and accessories and may not include all standard equipment.

225X.02T.01 Printed in japan

Courtesy of Machine.Market

# MADE IN JAPAN

The world knows that Japanese design and manufacturing is the best especially for industrial products. The hydraulic excavator is not the exception when a total integration concept is required in design work involving key components, manufacturing engineering and product quality assurance in the factory.

All SUMITOMO hydraulic excavators are engineered and assembled in SUMITOMO's its one and only factory located in Chiba City, Japan, and distributed to each country in the world. This distinctive feature is unique to SUMITOMO, giving the SUMITOMO machine users total comfort and reliance on product quality.

(Note: Some of the items manufactured and sourced in other countries may be assembled in Japan.)



**LEGEST**  
**SH 225X**

# Minimum Swing Radius

In addition to boasting top-class compact rotational capability for cramped areas, outstanding stability, and powerful digging and drive strength have been realized. On various kinds of work-sites it can always be trusted to perform and maneuver exactly as the operator intends.



**Performance capacity** **UP 5%**  
(As compared with SH200-5 in H-mode)

**Standard output** **UP 11%**  
**114.4kW/1800min<sup>-1</sup>**

**Diversified operational field**

- Road works
- Forest road works
- Demolition works

## Improvements to precision maneuverability

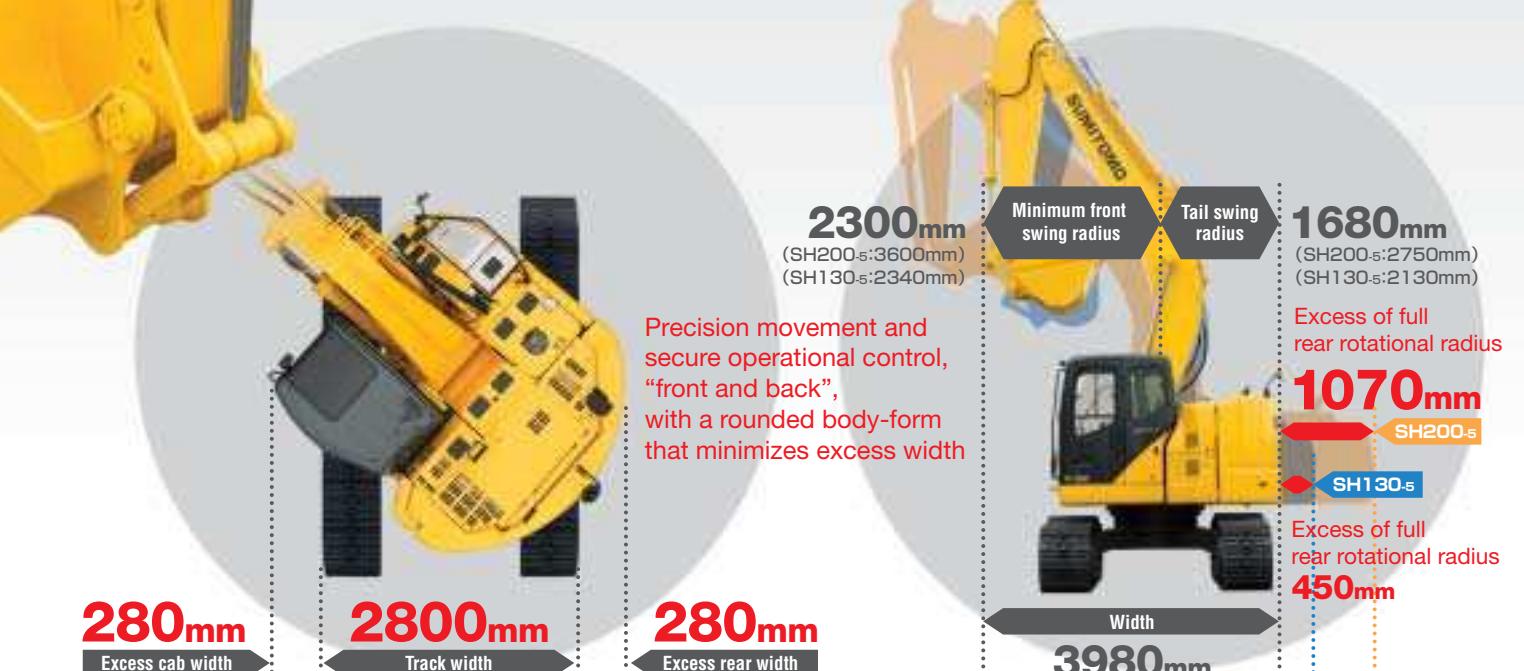
Precision maneuverability that functions exactly as the operator intends has been made possible through the employment of a new type of rotational bearing.

## Rotational ABS

A rotation shock-absorber device has been installed to soften jolts that occur when the vehicle halts rotation. This is particularly useful for pinpointing position, and preventing spillages during manual operation.

## Employment of speed assisted mechanics

Through employing an oil return system in the arm and boom, speed assisted operations for digging, as well as fuel consumption, have been improved.



## SPACE5

SUMITOMO Powerful And Clean Engine System

- ① Powerful
- ② Economy
- ③ Clean
- ④ Silent
- ⑤ Strong

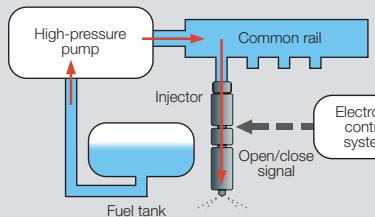
High-level operational performance and environmental soundness have been simultaneously achieved.

The new-type "SPACE 5" engine system meets the newly enacted Japanese Off-road machinery regulation (Law on Regulation of Special Motor Vehicle Exhaust)

## Clearing the Non-road Special Motor Vehicle Exhaust Emission Standard



"Achieving an exceptionally high standard for the 5 major qualities required of construction machinery", that is the solution provided by the SPACE5 engine that will meet the demands of the next generation.

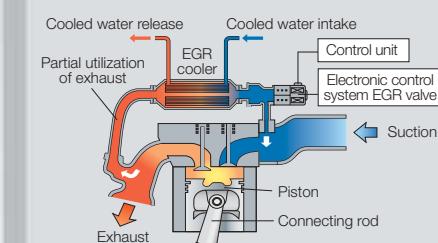


### Common rail fuel injection system

The super-high-pressure common rail fuel injection system realizes super-high-pressure, high-precision multiple-injections. Timing and volume of fuel injection is controlled, which improves consumption efficiency, and PM (particulate matter) is greatly reduced.

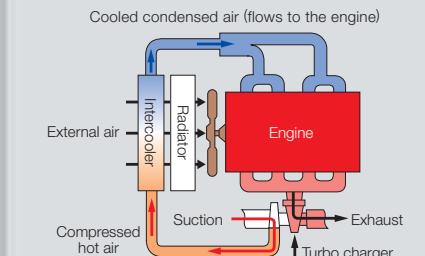
### Cooled EGR system

Exhaust gas is re-circulated and combustion temperature lowered by the EGR (Exhaust Gas Recirculation) engine. In addition, a water-cooled EGR system has been employed, which further efficiently reduces NOx (nitrogen oxide).



### 4-valve OHC turbo engine with intercooler

Air intake efficiency is improved by the intercooler. It cools air taken in, which has been heated by the compression of the turbo charger. In addition to a great reduction of NOx and PM, high output and improved fuel consumption have been realized.



**2300mm**  
(SH200-5:3600mm)  
(SH130-5:2340mm)

**Minimum front swing radius**

**Tail swing radius**

**1680mm**  
(SH200-5:2750mm)  
(SH130-5:2130mm)

Excess of full rear rotational radius

**1070mm**

SH200-5  
SH130-5

Excess of full rear rotational radius

**450mm**

# Maintenance

Diverse innovations designed to reduce running costs and make maintenance easy.  
In terms of both cost and labor, you will really come to appreciate its efficiency the longer you use it.



## Operation mode-change switch



The customer can easily switch between N Mode, which maximizes operational capacity, and E Mode, which prioritizes fuel economy, as required.

Fuel consumption rate  
Improved by approximately  
**7%**  
(when in N Mode)

Cycle time  
Reduced by approximately  
**5%**  
(when in N Mode)

## 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 spattering because of the attached drain hose.

## Ground Level Access

Various parts of the excavator can now be cleaned and changed from ground level without climbing onto the body of the vehicle. Maintenance is no longer troublesome.

- ① Double element air cleaner
- ② Fuel cooler
- ③ Condenser
- ④ Battery (maintenance free)
- ⑤ Reserve tank
- ⑥ Washer tank



● **Fuel, oil filter remote**  
Thanks to the installation of a fuel pre-filter as standard, breakdowns caused by fuel blockages are reduced. In addition, because the fuel and oil filters are installed in positions that can be accessed from ground level, changing them is made simple.

- ① Fuel pre-filter (with water separator)
- ② Fuel filter (with water separator)
- ③ Oil filter



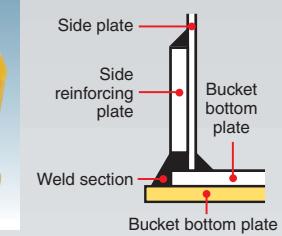
## Ease of cleaning around radiator



## Bucket

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

■ **Cross section**  
Protection of weld bottom plate and flattening of bottom plate by changing the bottom plate weld structure.



## New-type track guard to prevent wheel loosening

A new-type of track guard has been employed. This is effective in protecting the roller and preventing the shoe from coming loose.



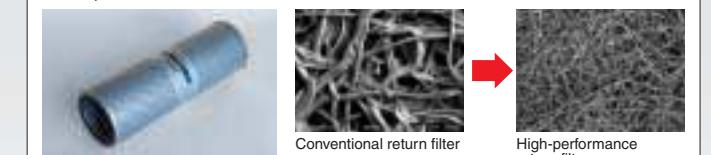
## High-Performance Return Filter

The hydraulic oil change interval is 5,000 hours, and the return filter change interval is 2,000 hours. 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.

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



## 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 the interval 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.

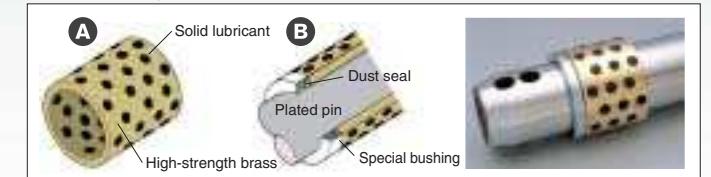


- **Bucket greasing interval : 250 hours**

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

※The greasing interval depends on the working conditions.

### ■ EMS bushing



① A solid lubricant embedded in high strength brass forms a layer on the bushing surface to prevent contact between metals, maintaining an excellent lubricated state to reduce the abrasion of joints.

② The surface of the pin is plated to increase the surface hardness and to improve the wear resistance accordingly.

### 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.

# Operator Comfort and Safety

How safely, and in what level of comfort can the driver carry out daily operations?  
We have extended every possible care and attention to ensure that both safety and comfort are provided.



## Comfortable and spacious cab

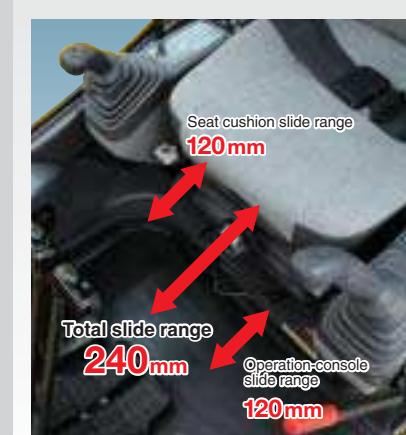
### Spacious foot space



### Floor design allows easy access to and from cab



### Full operation-console slide adjustment (Reclining seat)



### Air conditioner installed as standard

An air conditioner is fitted as standard. Front facing airflow vents and a defrosting function allow a pleasant work environment to be maintained.

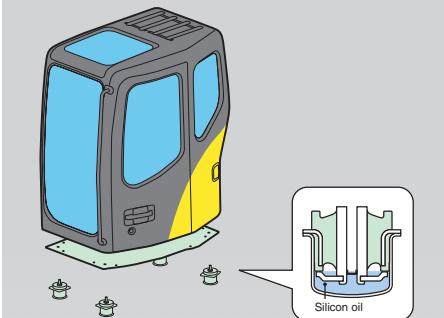


### Slide-door windows



### Employment of fluid-mount suspension to reduce fatigue

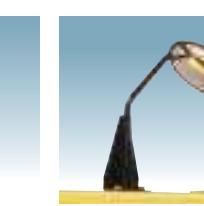
Impacts and vibrations on the cab are effectively absorbed, providing a pleasant and comfortable ride, as well as reducing noise levels inside the cab. Operator fatigue is reduced.



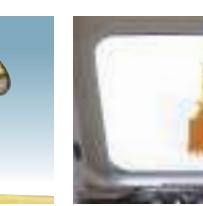
### Large hand rail on front right side



Emergency escape hammer



Reversing rear-view mirror



Cab roof window



Membrane switch



Emergency stop switch



Defroster/Cup holder

## Lifting Capacity

ARM : STD ARM  
SHOE : 600G  
BUCKET : 0.8m<sup>3</sup>

ARM LENGTH = 3.00 (m)  
MAXIMUM REACH = 8.87 (m)  
TIPPING CAPACITY (MARK: ) = 75.0 (%)  
HYDRAULIC CAPACITY (MARK:\*) = 87.0 (%)

Bucket Hook Height	Radius of Load								
	Max.Radius	8m	7m	6m	5m	4m	3m	2m	Min.Radius
7m We	4640*	5.69							4770* 5.08
Ws	4640*	5.69							4770* 5.08
6m We	3730*	7.37	4280*	4950*	5040*				5050* 4.82
Ws	2880	7.37	3190	4250	5040*				5050* 4.82
5m We	2570*	8.29	3460*	5000*	5280*	5590*			5600* 4.2
Ws	2230	8.29	2410	3130	4130	5590*			5600* 4.2
4m We	2570*	8.61	3870	4900	5770*	6380*	7310*	8370*	8520* 2.77
Ws	2030	8.61	2360	3030	3970	5390	7310*	8370*	8520* 2.77
3m We	2660*	8.8	3800	4770	6160	7320*	8910*	11980*	9030* 2.15
Ws	1900	8.8	2290	2910	3780	5080	7250	11650	9030* 2.15
2m We	2790*	8.87	3710	4630	5940	8000	10460*	11400*	4510* 2.43
Ws	1820	8.87	2210	2790	3580	4760	6680	10440	4510* 2.43
1m We	2990*	8.83	3630	4500	5740	7690	11200	7850*	3390* 2.28
Ws	1790	8.83	2140	2670	3410	4480	6240	7850*	3390* 2.28
0 We	3140	8.67	3570	4400	5590	7450	10860	8180*	4200* 3540* 1.69
Ws	1810	8.67	2080	2580	3270	4280	5960	8180*	4200* 3310* 1.54
-1m We	3280	8.4	3590	4320	5480	7310	10690	9700*	6220* 5640* 1.69
Ws	1890	8.4	2040	2510	3170	4160	5820	9310	6220* 5110* 1.19
-2m We	3540	7.98	4290	5430	7250	10640	11920*	8380*	7760* 1.69
Ws	2040	7.98	2480	3120	4100	5770	9340	8380*	7090* 1.19
-3m We	3970	7.41	4310	5430	7020	10680	14070*	10830*	10080* 1.69
Ws	2310	7.41	2500	3130	4110	5810	9450	10830*	9230* 1.19
-4m We	4740	6.64							5510 7340 9750* 12240* 13770* 12810* 1.69
Ws	2770	6.64							3200 4180 5920 9640 13770* 11670* 1.19
-5m We	5230*	5.59							6200* 7800* 9660* 12260* 13430* 1.69
Ws	3700	5.59							4340 6110 9660* 12260* 13550* 1.66

WE : OVER END WS : OVER SIDE

BLADE : UP  
ARM : STD ARM  
SHOE : 600G  
BUCKET : 0.8m<sup>3</sup>

ARM LENGTH = 3.00 (m)  
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5m We	2570*	8.29	3460*	5000*	5280*	5590*			5600* 4.2
Ws	2410	8.29	2590	3350	4390	5590*			5600* 4.2
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Ws	2200	8.61	2540	3250	4230	5720	7310*	8370*	8520* 2.77
3m We	2660*	8.8	3900	4890	6310	7320*	8910*	11980*	9030* 2.15
Ws	2060	8.8	2470	3130	4040	5410	7690	11980*	9030* 2.15
2m We	2790*	8.87	3820	4750	6090	8200	10460*	11400*	4510* 2.43
Ws	1980	8.87	2400	3000	3840	5090	7130	11130	4510* 2.43
1m We	2990*	8.83	3740	4620	5890	7880	11480	7850*	3390* 2.28
Ws	1960	8.83	2320	2890	3670	4810	6680	7850*	3390* 2.28
0 We	3240	8.67	3670	4520	5740	7650	11140	8180*	4200* 3540* 1.69
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Ws	2070	8.4	2220	2730	3430	4480	6260	9700*	6220* 5110* 1.19
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Ws	2230	7.98							2700 3390 4430 6220 10030* 8380* 7090* 1.19
-3m We	4090	7.41							4430 5580 7450 10960 14070* 10830* 10080* 1.69
Ws	2510	7.41							2710 3390 4440 6250 10140* 10830* 9230* 1.19
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Ws	3000	6.64							3460 4510 6360 10330 13770* 11670* 1.19
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Ws	3980	5.59							4670 6560 9660* 12260* 13550* 1.66

WE : OVER END WS : OVER SIDE

BLADE : UP  
ARM : STD ARM  
SHOE : 700G  
BUCKET : 0.8m<sup>3</sup>

ARM LENGTH = 3.00 (m)  
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Ws	2250	8.61	2600	3320	4310	5820	7310*	8370*	8520* 2.77
3m We	2660*	8.8	3990	4990	6350*	7320*	8910*	11980*	9030* 2.15