

# SUMITOMO

## SH240-5

- Engine Rated Power (Net) : 132 kW · 180 PS
- Operating weight :  
SH240-5 ..... 24,400~25,000 kg
- Bucket : ISO/SAE/PCSA Heaped : 0.80~1.30 m<sup>3</sup>

**LEGEST**



**SUMITOMO (S.H.I.)**  
**CONSTRUCTION MACHINERY**  
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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.



## 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 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.)

·The new engine complies with the Emission Regulations U.S. EPA Tier III, and EU Stage IIIA.

·The advanced low noise design complies with the upcoming EU noise regulation 2000/14/EC, STAGE II.

## Engine and Hydraulics 04 - 07

- SPACE 5
- SIH'S
- New working mode

## Durability 08 - 09

- Stronger boom and arm
- Durable bucket
- Ridged swing frame
- Improved undercarriage

## Maintenance 10-11

- High performance hydraulic return filter
- Fuel tank
- Engine oil drain coupler
- Ground level maintenance

## Operator Comfort 12 - 13

- Spacious cabin
- Comfortable operator's seat
- Message display from LCD monitor

## Safety 14

- Optimised view from cabin
- High -rigidity cabin structure

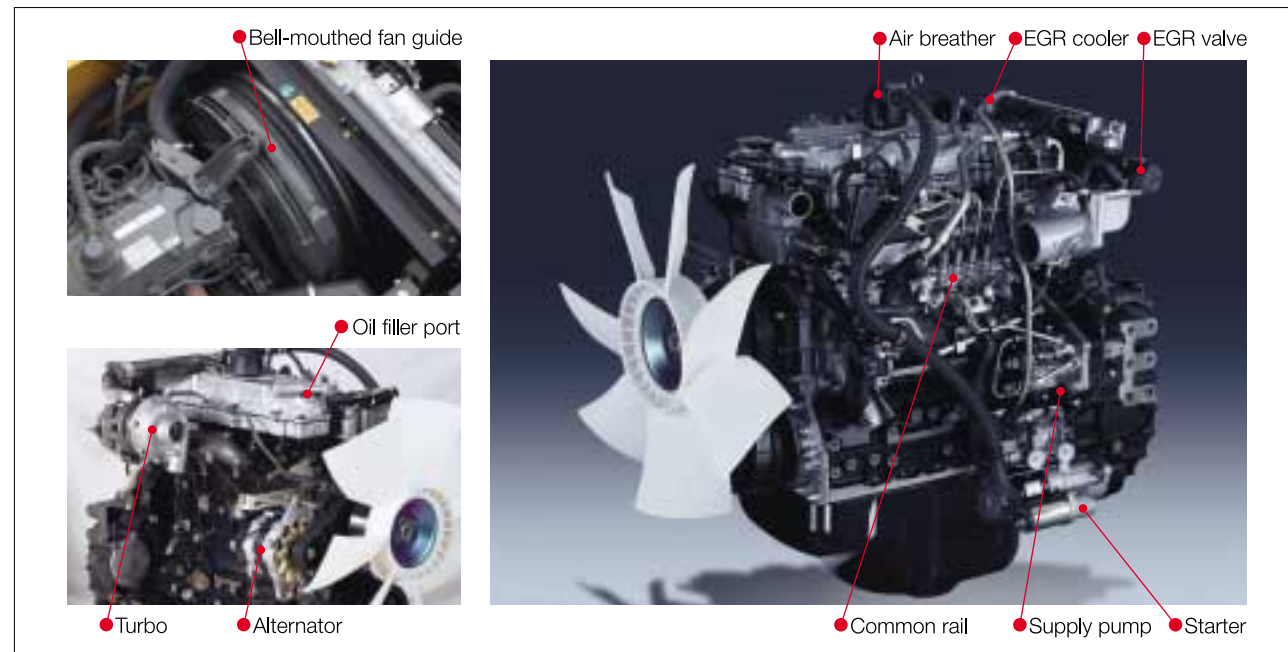
## Customer and Product Support 15

## Specifications 16 - 23

# Engine and Hydraulics



- ① Powerful ② Economy ③ Clean ④ Silent ⑤ Strong  
 "SPACE5" is a new engine system consisting of five (5) special features.

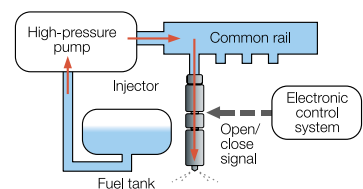


## Engine

A newly developed ISUZU engine 4HK1X complies with Emission Regulations U.S. EPA Tier III and EU Stage IIIA. This produces bigger output and torque, and far better fuel consumption than the previous model.

## Common Rail Type High-Pressure Fuel Injection System

The system is equipped with a common rail type high-compression fuel injection system, which permits high-precision injection from multiple injection under ultra high-pressure of more than 1600 atm. Precise control of injectors time and injection quality at the rate of 1/1000 second optimizes combustion, improves combustion efficiency, and reduces PM (particulate matter) substantially.

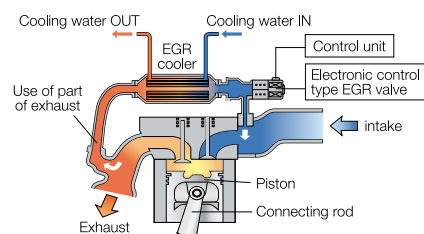


## Comparison of engines

	SH240-3	SH240-5	Merit
Name of engine	ISUZU-6BG1T	ISUZU-4HK1X	
Type	12-valve OHV	16-valve OHC	
Displacement	cc 6494	5193	
Number of cylinders - Dia. x Stroke	mm 6-105 x 125	4-115 x 125	
Rated output	kW/min <sup>-1</sup> 121/2,150	132/2,000	Higher output (+9%)
Max. torque	N·m/min <sup>-1</sup> 562/1,800	636/1,500	Higher torque (+13%)
Size (Length-Width-Height)	mm 1204-768-961	1020-829-1012	
Cylinder block	Bearing CAP	Ladder frame	High rigidity/low noise
Fan belt	V-Belt	Poly V-Belt	Long life

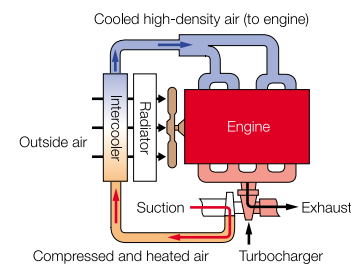
## Cooled EGR System

The EGR (Exhaust Gas Recirculation) mixes exhaust gas, which is once exhausted, with the air intake that is taken in so as to lower the combustion temperature, thereby reducing NOx (nitrogen oxide). Adoption of the cooled EGR system, in which a water cooler is installed in the middle of the re-circulation pipe, permitting further decrease in the intake temperature, ensuring a better NOx reduction effect than the ordinary EGR.

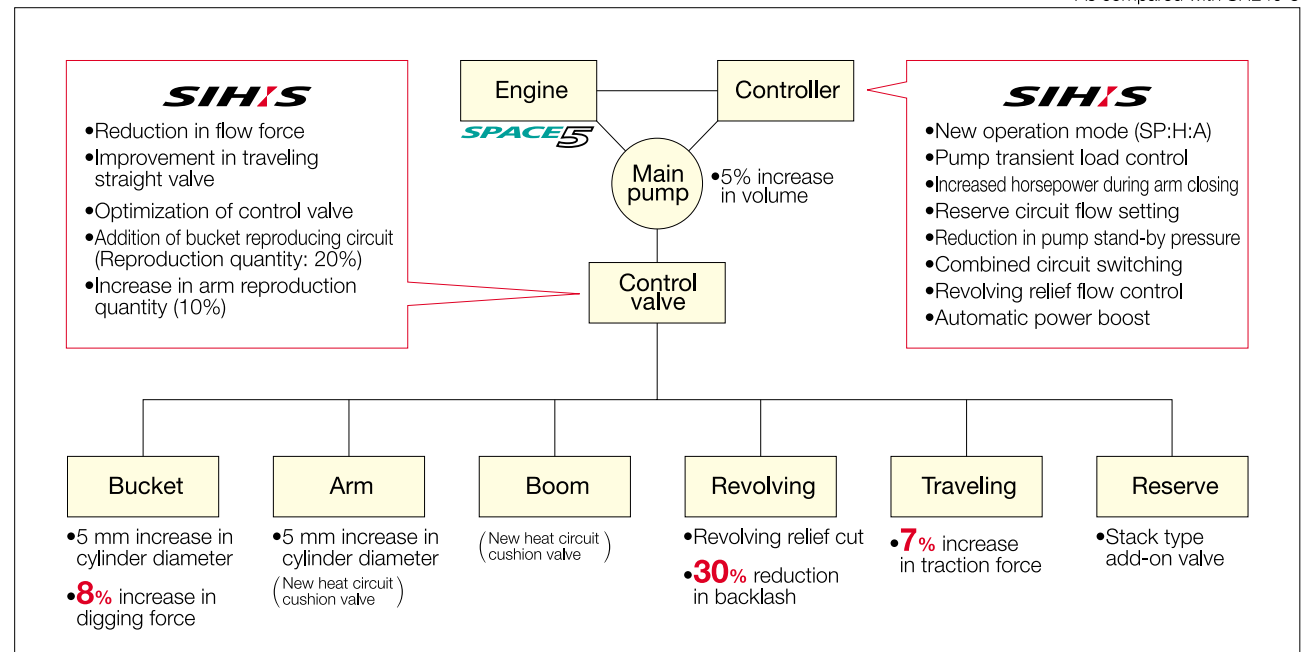


## 16 valve OHC Turbo Engine with Inter-Cooler

When the inter-cooler cools the intake air, which is compressed by a turbocharger and has reached a high temperature, the density of the air increases and the suction efficiency increases. Therefore, NOx and PM can be reduced substantially, permitting high output and improvement of fuel efficiency simultaneously.



- 50% increase in bucket closing speed
  - 5% improvement in arm closing speed under heavy excavation
  - 7% increase in traction force
  - 3% increase in arm digging force
- \* As compared with SH240-3



## Real Digging Power

The true digging force can not be expressed by a maximum digging power figure listed in sales materials. With a much improved hydraulic system and by adopting a larger arm cylinder, the arm-in motion speed slowdown is minimized by eight percent (8%) in comparison with the previous model. The digging power when combined with the attachment speed in motion convey to the operators "real digging power".

## 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.



## SP (Speed Priority mode)

SP "Speed Priority" mode has been developed, which is not available in competitors models nor in our previous model. This will create biggest productivity in its class with more economical fuel efficiency even in comparison with the Heavy mode of our previous model. In addition, the throttle control is simple to use.

- SP mode: 7% increase in workload
- \* As compared with SH240-3 (H mode)

## 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.



# Engine and Hydraulics

The integration of the new engine system "SPACE 5" and new hydraulic system "SIH:S" has created 18% fuel efficiency improvement in comparison with our conventional model.

New engine system



+

New hydraulic system



||

**18%** reduction in fuel consumption compared to SH240-3 (H mode)

\*The fuel consumption may vary from time to time depending on site and working conditions, operator skill and other circumstances.

Greater productivity and increased working efficiency



## Hydraulic Oil Flow Control

SUMITOMO unique design

In the case of sudden lever movement and high load activation, the newly developed hydraulic control system reduces the main pump oil flow intentionally and keeps the engine speed at a constant level. This enables a reduction in fuel consumption. In addition, this also reduces the level of exhaust smoke due to excessive fuel injection.

## Reduction of Hydraulic Oil Flow at Swing

SUMITOMO unique design

The hydraulic oil quantity required at the time of sudden swing motion is limited. The new hydraulic system can start the oil flow volume at the minimum level and then allow it to increase on demand. This optimum oil flow control significantly improves the fuel efficiency.

## Reduction in Pump Stand-by Pressure

SUMITOMO unique design

Reducing pump oil flow pressure during stand-by minimizes the load on the engine. This also improves fuel consumption.

## Increased Pump Efficiency

The new modified hydraulic pump structure lowers the oil leak volume in the pump which means improved pump efficiency and improved engine fuel efficiency.

## 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. In comparison with the H mode of Dash 3, the SP mode has reduced the fuel consumption by 12%, and the H mode of Dash 5 has reduced the fuel consumption by 18% as compared with Dash 3.



Throttle knob position	1	2	3	4~8	9~15
Engine speed	2,000	1,900	1,800	1,799~1,300	1,299~1,000
Operation mode	SP	H	A		
Automatic power boost	Automatic		Constant		

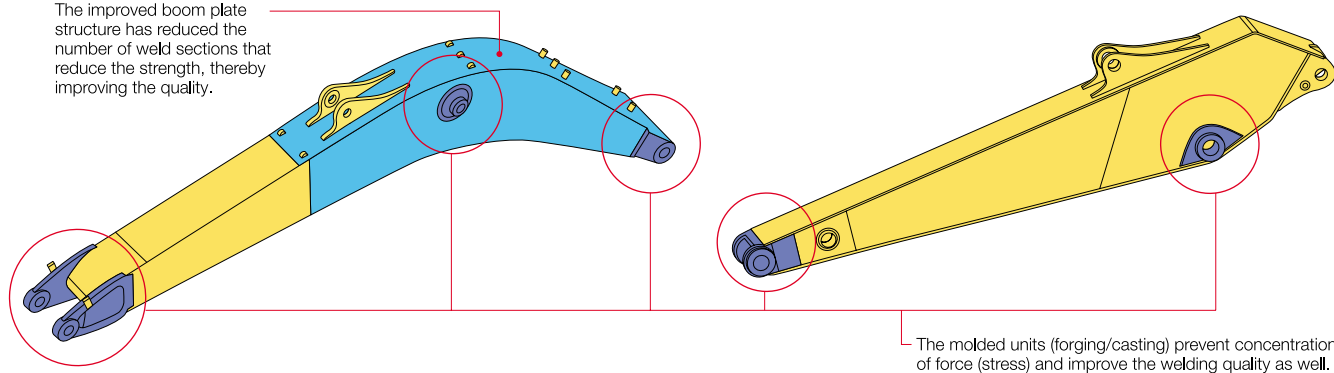
		Reduction in fuel consumption by 12%		SP	SPEED PRIORITY	↑ Working speed
H	HEAVY (Speed priority)	Reduction in fuel consumption by 18%		H	HEAVY (Simultaneous pursuit of speed and fuel efficiency)	
A	AUTO (Simultaneous pursuit of speed and fuel efficiency)	Reduction in fuel consumption by 5-22%		A (13 steps)	ADJUSTMENT (Ordinary operation / Fine operation / Lifting operation)	
S	STANDARD (Fuel priority)					
L	LIGHT/LIFT (Fine operation / Lifting operation)					
SH240-3 (Previous model)						SH240-5

# Durability

## Boom & Arm

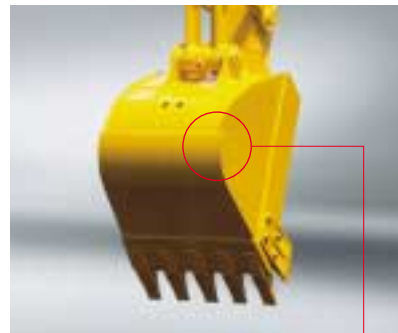
1. The boom structure is now 2 pieces instead of 3.
2. High strength castings are used for the boom base and arm end.
3. One size larger piping is used for the boom boss area.
4. Thicker steel plate is used for added strength.

The improved boom plate structure has reduced the number of weld sections that reduce the strength, thereby improving the quality.



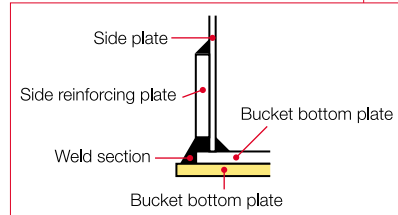
## Bucket

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



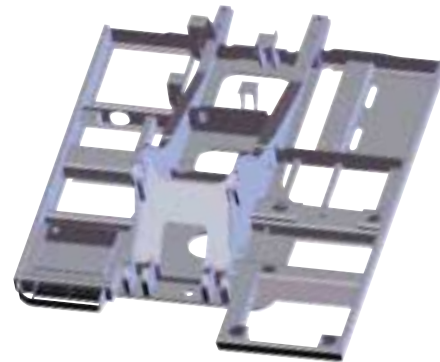
### ■ Cross section

Protection of weld bottom plate and flattening of bottom plate by changing the bottom plate weld structure

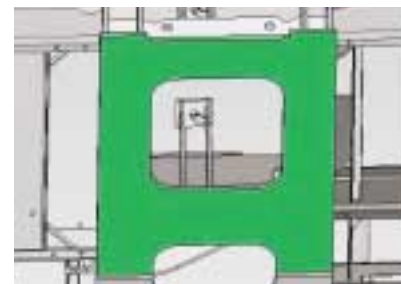


## Swing Frame

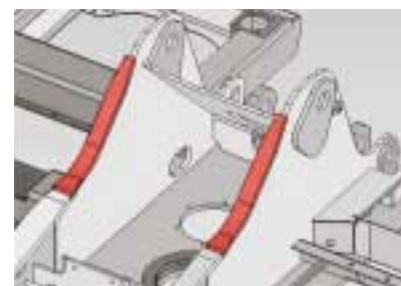
Reinforced plate on "A" frame is extended and the swing frame base is made in one-piece steel plate.



### ■ Revolving frame



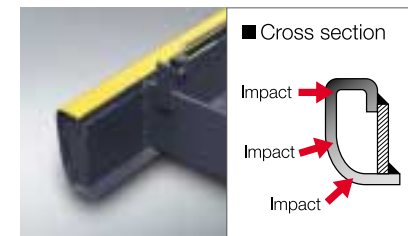
### ■ A frame



## Ridged Upper Side Section Frame

5% increase in rigidity

A closed -section "D" shape structure with thicker plate reduces stress and is high impact resistant.



## Undercarriage

### 1 Link shoe

M-type seal increased pin hardness

### 2 Center joint

Prevention of bolt loosening

### 3 Recoil Spring

Use of high hardness material

### 4 Idler

Reinforced boss

### 5 Travel motor

Improved seal

### 6 Carrier roller

Tread machining addition of jaw

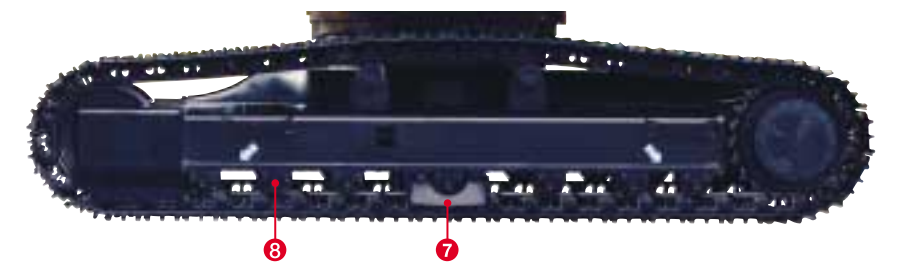
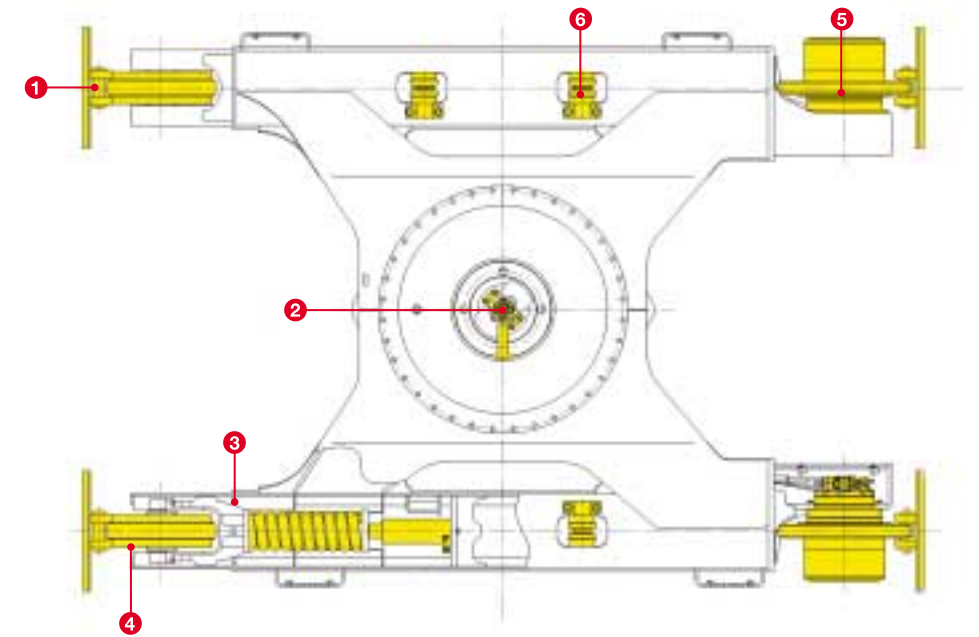


### 7 Center guard

Change of structure and bigger size

### 8 Track roller

Tread machining addition of jaw prevention of bolt loosening



# Maintenance

## High-Performance Return Filter

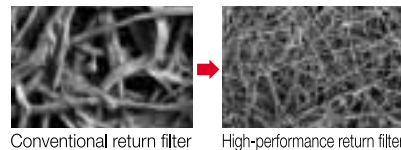
The hydraulic oil change interval is 5,000 hours, and the return filter change interval is 2,000 hours. One high performance return filter keeps the same level of filtering effect as a nephron.

- 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.



## Fuel Tank

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



## Engine Oil Drain Coupler

The engine oil pan is provided with a drain coupler. This makes easier to drain work and preventing oil from spattering with an attached drain hose.



## EMS (Easy Maintenance System) as Standard

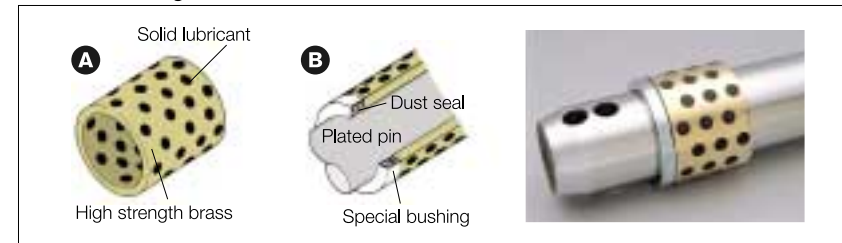
SUMITOMO's new improved EMS keeps the pins and bushes fully lubricated at all times and prevents rattling. This system significantly extends the service life of the pins and bushes.

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.

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

\* The greasing interval depends on the working conditions.

### EMS bushing



Ⓐ 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 abrasion of joints.

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

### Steel EMS bushing



Steel EMS is installed around the bucket



### 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 fitting new attachments.

## 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.

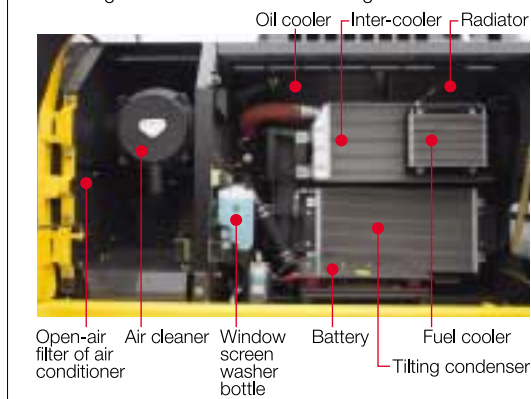


•Remote fuel and oil filters  
A fuel prefilter is provided as standard equipment to reduce trouble due to fuel clogging. In addition, the fuel and oil filters are installed at ground-accessible location to facilitate replacement.

Main fuel filter (with water separator) Engine oil filter Pre-fuel filter (with water separator) Pilot filter

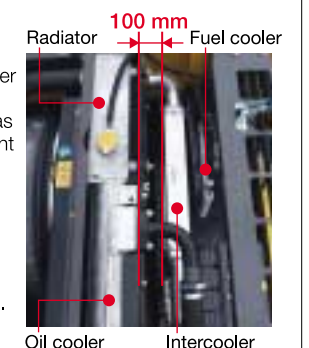
### Parallel installation of radiator and oil cooler

A space provided at the front of the intercooler and the tilting condenser facilitates cleaning.



### Ease of cleaning around radiator

The radiator and oil cooler are arranged in parallel. Furthermore, a space has been provided at the front of the intercooler and a tilting air condenser has been adopted to substantially facilitate cleaning. Dust build up can be removed easily and prevent overheating.



# Operator Comfort

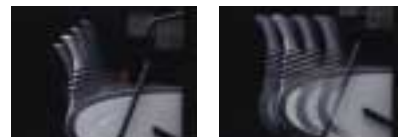
## SUMITOMO's Redesigned Cabin and Seat for Optimum Operator Comfort

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



## Operating Positions of Sliding Seat and Tilting Console

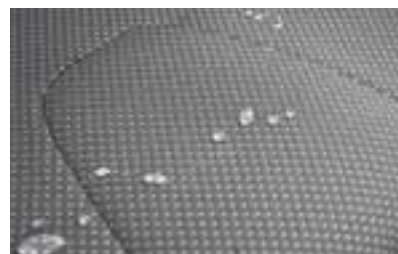
In addition to the tilting console that is adjustable in four steps vertically, the increased sliding distance ensures optimum working conditions.



## New Water-repelling Operator's Seat

**SUMITOMO unique design**

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



## The Suspension Seat Eliminates Vibration



Air suspension (Option)

## 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.



### Warning message

1. OVER HEAT
2. ALTERNATOR
3. LOW FUEL
4. LOW OIL PRESSURE
5. LOW COOLANT
6. ELEC.PROBLEM
7. OVER LOAD (option)
8. AIR FILTER
9. CHECK ENGINE
10. BOOST TEMP. HIGH
11. CHECK BREAKER FILTER (option)

### Active condition message

1. ENG.PRE HEAT
2. AUTO WARM UP
3. ENG.IDLING
4. POWER UP
5. ENGINE STOP

### Language menu

Japanese	Danish
English	Norwegian
Thai	Swedish
Chinese	Finnish
German	Turkish
French	Arabic
Italian	Malay
Spanish	Indonesian
Portuguese	(Pictograph)
Dutch	

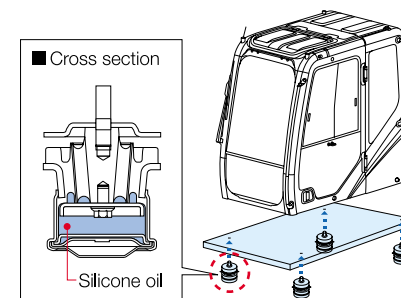
## Flow Setting in 10 Patterns and Switching of Combined Circuit

The switch panel in the cab permits setting the flow rate for work with a maximum of ten different special attachments in advance. A circuit change for the breaker and crusher is also possible in the cab.



## 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.



## Automatic Air Conditioner with Round Outlets for Increased Comfort

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.



## ISO-compliant Pressurized Cab to Prevent Dust Entry

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

## 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.



## Low Operation Noise

\* The ambient noise level is reduced by 3 dB, while the noise level inside the cab is reduced by approx. 4 dB. Reduction in the ambient noise by 3 dB achieves an effect equivalent to reduction in the sound sources by half.



Adoption of large muffler

Reduced fan speed and the bell-mouthed fan guide ensures a noise level far below the standard level.

## The wide view increases the safety of work

**SUMITOMO**  
unique design

In addition to the wide front view, the down-right view is also made larger to enhance the safety of work.



## Anti-theft Alarm System

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



Anti-theft alarm system

## Safety Equipment in case of an Emergency



Emergency stop switch

## 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 are installed to permit the operator to get in and out of the cab easily.



Large handrail



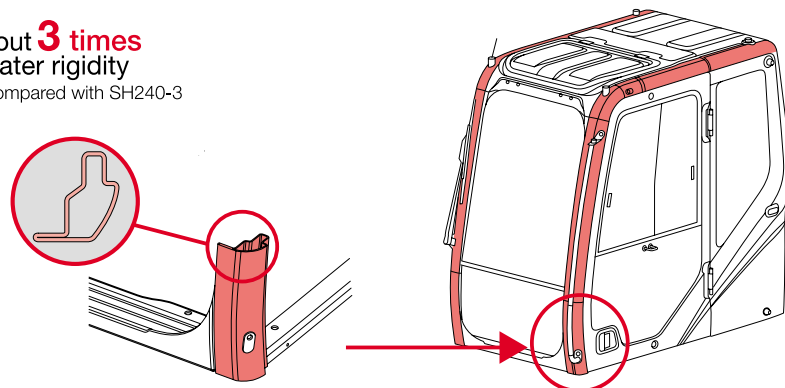
New non-slip plate

## High-rigidity Cabin

The new cabin structure provides advanced operator protection.

• About **3 times** greater rigidity

\* As compared with SH240-3



## Easy Access to the Upper Structure

A large step and handrail, as well as a non-slip place, minimize the effort when climbing on and off the upper structure.



Front-right large step



Non-slip plate



ISO-compliant large handrail

SUMITOMO's total commitment to product and customer support has enabled it grow into a world renowned manufacturer of hydraulic excavators. Supported by a global sales and service network of over four hundred distributors representing hydraulic excavators manufactured by SUMITOMO, the company supply 70% of total production from Japan to all five continents.

A spread of over one thousand outlets offering excellent parts and service support has global coverage ensuring SUMITOMO hydraulic excavator users have at their disposal Regional Spare Parts Centers, technical repair shops and service vehicles carrying all the necessary equipment to service and repair any hydraulic excavator manufactured by SUMITOMO.

SUMITOMO aims to produce the right products to meet all work applications and at the same time provide the highest level of more training and education to ensure complete product support quality throughout the service network in the world.





# Specifications

## SH240-5 Technical Data

### Engine

Two variable displacement axial piston pumps, one gear pump for pilot controls and electronic-controlled engine of SPACE5 and SIH:S with New Hydraulic System Includes:three working modes(SP,H,A) one-touch/automatic idling system, automatic power-boost, speed assistance system, power-swing system.

SH240-5	
Model	ISUZU AH-4HK1X
Type	Water-cooled,4-cycle,overhead valve, 4-cylinder in line,Direct injection (electric control), turbo-charged diesel engine.
Rated output	132 kW (180 PS)/2,000 min <sup>-1</sup>
Maximum torque	636 N·m at 1,500 min <sup>-1</sup>
Piston displacement	5,193 cc
Bore and stroke	115 mm x 125 mm
Starting system	24 V electric motor starting
Alternator	24 V,50 A
Fuel tank	410-liters
Air filter	Double element

### Hydraulic pumps

Two variable displacement axial piston pumps provide power for boom, arm, bucket, swing and travel.

SH240-5	
Maximum oil flow	2 x 234 liters/min
Pilot pump max.oil flow	20 liters/min

### Hydraulic motors

For travel:Two variable displacement axial piston motors.  
For swing:One fixed displacement axial piston motor.

### Relief valve settings

Boom/arm/bucket ····38.7 Mpa(395 kgf/cm<sup>2</sup>)<Holding pressure>  
Boom/arm/bucket ····34.3 Mpa(350 kgf/cm<sup>2</sup>)<Working pressure>  
Boom/arm/bucket ····36.8 Mpa(375 kgf/cm<sup>2</sup>)with Power-up<Working pressure>  
Swing circuit ········28.9 Mpa(295 kgf/cm<sup>2</sup>)  
Travel circuit ········34.3 Mpa(350 kgf/cm<sup>2</sup>)

### Control valve

One 4-spool valve and one 5-spool valve with auxiliary spool.

### Oil filtration

Return filter ··········6 microns  
Pilot filter ············8 microns  
Suction filter ··········105 microns

### Hydraulic cylinders

Cylinder	Q'ty	Bore x Rod Diameter x Stroke
Boom	2	130 mm x 90 mm x 1335 mm
Arm	1	145 mm x 105 mm x 1660 mm
Bucket	1	130 mm x 90 mm x 1070 mm

Double-acting, bolt-on type cylinder tube-end;hardened steel bushings Installed in cylinder tube and rods ends.

### Cab & Controls

Cab mounted on 4 fluid mountings. Features include safety glass front, rear and side windows, reclining/sliding cloth-upholstered suspension seat with headrest and armrest, cigarette lighter,pop-up skylight window,and intermittent wiper with washer. Front window slides upward for storage and the lower front window is removable. Control levers are located in a 4 position tilting control consoles. Reliable soft-touch switches. Easy-to-read Full-dot LCD monitor keeps operation in touch with critical machine functions.

### Swing

Planetary reduction powered by an axial piston motor.internal ring gear with Grease cavity for pinion. Swing bearing is single-row shear type ball Bearing. Dual stage relief valves for smooth swing Deceleration and stops. Mechanical disc swing brake.

SH240-5	
Swing speed	0~10.7 rpm
Tail swing radius	2,950 mm
Swing torque	74.9 kN·m(7,640 kgf·m)

### Undercarriage

X-style carbody is integrally welded for strength and durability. Grease Cylinder track adjusters with shock absorbing springs. Undercarriage with Lubricated rollers and idlers.

### Type of shoe:sealed link shoe

#### Upper rollers -

Heat treated, mounted on steel bushings with fluorine resin, sealed for lifetime lubrication.

#### Lower rollers -

Heat treated, mounted on steel bushings with leaded tin bronze casting, sealed for lifetime lubrication.

#### Track adjustment -

Idler axles adjusted with grease cylinder integral on each side frame;adjustment yoke mechanism fitted with heavy duty recoil spring.

### Number of rollers and shoes on each side

SH240-5	
Upper rollers	2
Lower rollers	9
Track shoes	51

### Travel System

Two-speed independent hydrostatic system with compact axial motors for Increased performance. Hydraulic motor output shaft coupled to a planetary reduction unit and track sprocket. All hydraulic components mounted within the width of side frame.

Travel speed can be selected by switch panel.

Hydraulically released disc parking brake is built into each motor.

SH240-5	
Travel speed	High 5.5 km/h Low 3.5 km/h
Maximum traction force	216 kN(22,000 kgf)

### Lubricant & Coolant Capacity

SH240-5	
Hydraulic system	250 liters
Hydraulic oil tank	147 liters
Fuel tank	410 liters
Cooling system	25.2 liters
Final drive case(per side)	4.5 liters
Swing drive case	9.7 liters
Engine crank case (with remote oil filter)	23 liters

### Auxiliary hydraulic system

SH240-5			
Auxiliary piping type (option)	For Breaker	For Double (breaker & crusher) acting	For D/A + Second option line
Arm type	STD	HD	HD
Bucket linkage type	HD	HD	HD
Auxiliary hydraulic pump flow	234 liters/min by 1 pump	468 liters/min by 2 pumps	468+60 liters/min

## Bucket

Model	SH240-5				
Bucket capacity (ISO/SAE/PCSA heaped)	0.80 m <sup>3</sup>	1.00 m <sup>3</sup>	1.10 m <sup>3</sup>	1.10 m <sup>3</sup>	1.30 m <sup>3</sup>
Bucket capacity (CECE heaped)	0.70 m <sup>3</sup>	0.85 m <sup>3</sup>	0.90 m <sup>3</sup>	0.90 m <sup>3</sup>	1.10 m <sup>3</sup>
Bucket type	STD	STD	STD	Level-pin	STD
Number of teeth	4	5	5	5	5
Width unit:mm	With side cutter 1 086 Without side cutter 985	1 276 1 175	1 360 1 260	1 360 1 260	1 560 1 460
Weight unit:kg	754.2	853	883.8	871.4	956.5
Combination	2.50 m arm ● 3.00 m arm ● 3.52 m arm ●	● ● ◎	● ◎ ○	● ◎ ○	◎ ○ ○

◎ Standard bucket (Suitable for materials with density up to 1,800 kg/m<sup>3</sup> or less)  
● Suitable for materials with density up to 2,000 kg/m<sup>3</sup> or less

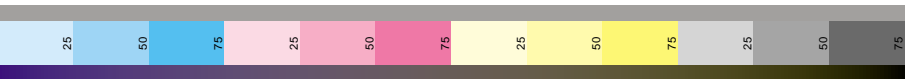
○ Suitable for materials with density up to 1,600 kg/m<sup>3</sup> or less  
△ Suitable for materials with density up to 1,200 kg/m<sup>3</sup> or less

## Weight & Ground Pressure

Model	SH240-5			
Shoe type	Shoe width	Overall width	Operating weight	Ground pressure
Triple grouser shoe	600 mm	3 190 mm	24 400 kg	48 kPa
	700 mm	3 290 mm	24 700 kg	49 kPa
	800 mm	3 390 mm	25 000 kg	50 kPa

## Digging Force

Model	SH240-5			
Arm length		2.50 m	3.00 m	3.52 m
Bucket digging force	ISO 6015	162 kN (174 kN)	162 kN (174 kN)	162 kN (174 kN)
	SAE: PCSA	145 kN (155 kN)	145 kN (155 kN)	145 kN (155 kN)
Arm digging force	ISO 6015	141 kN (151 kN)	120 kN (129 kN)	107 kN (115 kN)
	SAE: PCSA	136 kN (146 kN)	116 kN (125 kN)	104 kN (112 kN)



## Lifting Capacity

- Notes: 1. Ratings are based on SAE J/ISO 10567  
 2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.  
 3. The load point is a hook (not standard equipment) located on the back of the bucket.  
 4. \*Indicates load limited by hydraulic capacity.  
 5. 0m = Ground.



Unit : kg

**SH240-5** SHOE : 800 (mm)G ARM LENGTH = 3.52 (m) BOOM : 5.85 (m)  
 BUCKET : SAE/PCSA 1.00 (m³) MAXIMUM REACH = 9.30 (m)

Bucket Hook Height	Radius of Load																							
	Max. Radius		9 m		8 m		7 m		6 m		5 m		4 m		3 m		2 m		Min. Radius					
8 m																				2 682*	6.96	2 682*	6.96	
7 m	2 482*	7.75	2 482*	7.75																3 913*	7.13	3 913*	7.13	
6 m	2 416*	8.33	2 416*	8.33			3 402*	3 402*												4 816*	7.04	4 816*	7.04	
5 m	2 403*	8.76	2 403*	8.76			4 404*	3 876	5 089*	4 945										5 115*	6.67	5 115*	6.67	
4 m	2 436*	9.06	2 436*	9.06	2 665*	2 665*	5 218*	3 781	5 513*	4 791	5 844*	5 844*								5 884*	5.90	5 884*	5.90	
3 m	2 514*	9.23	2 514*	9.23	3 470*	2 958	5 632*	3 667	6 032*	4 613	6 641*	5 954	7 590*	7 590*	9 197*	9 197*			11 046*	11 046*	15 668*	2.48	15 668*	2.48
2 m	2 640*	9.30	2 640*	9.30	3 958*	2 884	5 506	3 547	6 589*	4 430	7 479*	5 674	8 891*	7 560	11 357*	10 780	15 563*	15 563*			4 475*	2.22	4 475*	2.22
1 m	2 825*	9.25	2 681	9.25	4 103*	2 814	5 383	3 433	6 683	4 261	8 258*	5 421	10 046*	7 172	13 113*	10 151	10 209*	10 209*			3 523*	2.02	3 523*	2.02
0 m	3 087*	9.10	2 709	9.10	3 680*	2 758	5 280	3 339	6 527	4 121	8 361	5 220	10 918*	6 885	14 248*	9 750	10 201*	10 201*	5 532*	5 532*	5 311*	1.92	5 290*	1.55
-1 m	3 462*	8.83	2 810	8.83			5 208	3 272	6 415	4 019	8 202	5 079	11 122	6 701	14 795*	9 535	11 690*	11 690*	7 690*	7 690*	7 497*	1.92	6 557*	1.38
-2 m	4 014*	8.43	3 004	8.43			5 177	3 244	6 354	3 963	8 114	5 001	11 014	6 609	14 846*	9 453	13 958*	13 958*	10 008*	10 008*	9 809*	1.92	8 774*	1.38
-3 m	4 885*	7.88	3 336	7.88					6 349	3 959	8 096	4 985	10 999	6 596	14 443*	9 469	16 924*	15 987	12 593*	12 593*	12 367*	1.92	11 143*	1.38
-4 m	6 216	7.16	3 904	7.16					6 421	4 025	8 154	5 037	10 828*	6 659	13 541*	9 575	17 617*	16 198	15 598*	15 598*	15 323*	1.92	13 794*	1.38
-5 m	7 290*	6.18	4 968	6.18							7 638*	5 183	9 582*	6 812	11 972*	9 779	15 359*	15 359*	19 278*	19 278*	18 913*	1.92	16 878*	1.38
-6 m	7 494*	4.81	7 494*	4.81											9 278*	9 278*	11 856*	11 856*			12 642*	2.75	12 642*	2.75

**SH240-5** SHOE : 800 (mm)G ARM LENGTH = 3.00 (m) BOOM : 5.85 (m)  
 BUCKET : SAE/PCSA 1.10 (m³) MAXIMUM REACH = 8.77 (m)

Bucket Hook Height	Radius of Load																							
	Max. Radius		8 m		7 m		6 m		5 m		4 m		3 m		2 m		Min. Radius							
7 m	3 137*	7.11	3 137*	7.11			3 526*	3 526*													4 498*	6.63	4 498*	6.63
6 m	3 067*	7.74	3 067*	7.74			5 142*	4 990													5 356*	6.53	5 356*	6.53
5 m	3 069*	8.20	3 069*	8.20	3 884*	3 836	5 608*	4 887													5 780*	6.09	5 780*	6.09
4 m	3 132*	8.51	3 132*	8.51	5 173*	3 756	6 000*	4 743	6 445*	6 140											7 057*	5.10	7 057*	5.10
3 m	3 256*	8.70	3 148	8.70	5 618	3 654	6 484*	4 577	7 208*	5 877	8 367*	7 856	10 400*	10 400*	14 708*	14 708*					7 043*	2.37	7 043*	2.37
2 m	3 448*	8.77	3 034	8.77	5 502	3 547	6 839	4 409	7 991*	5 616	9 590*	7 436	12 426*	10 514	10 029*	10 029*					4 936*	2.62	4 936*	2.62
1 m	3 728*	8.72	2 997	8.72	5 395	3 450	6 673	4 258	8 546	5 391	10 616*	7 095	13 911*	9 990	8 612*	8 612*					4 380*	2.46	4 380*	2.46
0 m	4 129*	8.56	3 038	8.56	5 312	3 373	6 541	4 139	8 352	5 219	11 296	6 859	14 726*	9 695	10 003*	10 003*					6 515*	2.04	6 515*	2.04
-1 m	4 716*	8.27	3 170	8.27	5 263	3 329	6 455	4 062	8 229	5 110	11 137	6 724	14 976*	9 563	12 364*	12 364*	8 489*	8 489*	8 315*	1.92	8 442*	1.45		
-2 m	5 419	7.84	3 424	7.84			6 422	4 032	8 175	5 063	11 078	6 674	14 763*	9 541	15 362*	15 362*	11 347*	11 347*	11 153*	1.92	10 188*	1.38		
-3 m	6 129	7.25	3 868	7.25			6 456	4 062	8 195	5 080	11 109	6 700	14 100*	9 606	18 292*	16 227	14 456*	14 456*	14 220*	1.92	12 963*	1.38		
-4 m	7 424	6.45	4 669	6.45					8 302	5 175	10 389*	6 804	12 897*	9 758	16 474*	16 474*	18 060*	18 060*	17 753*	1.92	16 072*	1.38		
-5 m	7 932*	5.35	6 352	5.35							8 660*	7 021	10 882*	10 023	13 736*	13 736*	18 181*	18 181*	18 188*	2.00	18 188*	2.00		

**SH240-5** SHOE : 800 (mm)G ARM LENGTH = 2.50 (m) BOOM : 5.85 (m)  
 BUCKET : SAE/PCSA 1.30 (m³) MAXIMUM REACH = 8.30 (m)

Bucket Hook Height	Radius of Load																							
	Max. Radius		8 m		7 m		6 m		5 m		4 m		3 m		2 m		Min. Radius							
7 m	4 549*	6.52	4 549*	6.52																	5 827*	6.15	5 827*	6.15
6 m	4 468*	7.20	4 468*	7.20			5 370*	4 897													5 938*	6.02	5 938*	6.02
5 m	4 497*	7.69	4 059	7.69			6 082*	4 816	6 360*	6 274											6 574*	5.49	6 574*	5.49
4 m	4 619*	8.03	3 687	8.03	4 802*	3 712	6 434*	4 687	6 979*	6 051	7 869*	7 869*	9 402*	9 402*							15 598*	2.52	15 598*	2.52
3 m	4 836*	8.23	3 454	8.23	5 586	3 628	6 878*	4 535	7 705*	5 802	9 059*	7 716	11 513*	10 958							11 109*	3.02	11 109*	3.02
2 m	5 164*	8.30	3 327	8.30	5 488	3 538	6 808	4 384	8 429*	5 564	10 195*	7 330	13 373*	10 288							8 031*	3.22	8 031*	3.22
1 m	5 143	8.25	3 292	8.25	5 401	3 458	6 663	4 253	8 512	5 365	11 081*	7 036	14 542*	9 875							6 852*	3.09	6 852*	3.09
0 m	5 261	8.08	3 352	8.08	5 340	3 402	6 555	4 156	8 352	5 224	11 278	6 850	15 017*	9 680	9 277*	9 277*					6 656*	2.57	6 656*	2.57
-1 m	5 550	7.77	3 525	7.77			6 495	4 102	8 262	5 145	11 171	6 759	14 977*	9 620	12 896*	12 896*	8 975*	8 975*	8 818*	1.92	9 810*	1.92		
-2 m	6 085	7.32	3 856	7.32			6 495	4 101	8 244	5 128	11 159	6 748	14 514*	9 650	17 035*	16 301	12 779*	12 779*	12 585*	1.92	11 700*	1.38		
-3 m	7 047	6.68	4 451	6.68					8 303	5 180	10 988*	6 811	13 600*	9 759	17 254*	16 501	16 837*	16 837*	16 577*	1.92	15 232*	1.38		
-4 m	8 164*	5.80	5 597	5.80							9 767*	6 963	12 073*	9 958	15 112*	15 112*	19 710*	19 710*	20 203*	1.92	20 475*	1.72		
-5 m	8 312*	4.53	8 312*	4.53									9 479*	9 479*	11 820*	11 820*					12 043*	2.91	12 043*	2.91

## Principle Specifications

		SH240-5
		STD Specifications
Base	Boom length	5.85 m
	Arm length	3.00 m
	Bucket capacity (ISO heaped)	1.10 m <sup>3</sup>
	Std. operating weight	24 400 kg
	Make & model	ISUZU AH-4HK1X
Engine	Rated output	132.1 kW/2 000 min <sup>-1</sup>
	Displacement	5 193 ml(cc)
Hydraulic System	Main pump	2 variable displacement axial piston pumps
	Max pressure	34.3 Mpa
	(with auto power boost)	36.8 Mpa
	Travel motor	Variable displacement axial piston motor
Performance	Parking brake type	Mechanical lock brake
	Swing motor	Fixed displacement axial piston motor
	Travel speed	5.5/3.5 km/h
	Traction force	216 kN (22,000 kgf)
Others	Grade ability	70% <35°>
	Ground pressure	48 kPa
	Swing speed	10.7 min <sup>-1</sup>
	Bucket	162 kN
	/with power boost	174 kN
	Arm	120 kN
	/with power boost	129 kN
Fuel tank	410 liters	
Hydraulic fluid tank	250 liters	

## Standard equipment

### [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

### [Cab/interior equipment]

- Tilting console
- Open air introducing pressurized full-automatic air conditioner
- Defroster
- Hot & cool box
- Water-repelling operator's seat
- Seat suspension
- Rise-up wiper (with intermittent operation function)
- Cup holder
- AM/FM radio (with muting function)
- Clock
- Magazine rack
- Accessory case
- Floor mat
- Armrest & headrest
- Ashtray & cigar lighter
- Room light (Auto-OFF function)
- Coat hook

### [Safety equipment]

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

### [Others]

- EMS
- Long-life hydraulic oil
- Two lights (main unit and left of arm)
- Fuel filter (with water separator)
- Fuel prefilter (with water separator)
- Double-element air cleaner
- Grease-enclosed track link
- Bucket rattling control mechanism
- Large tool box
- A set of tools

## Accessories (option)

### ■ Cab-top light



### ■ Rain reflector



### ■ 12V power (DC-DC converter)



### ■ Head guard (FOPS level 2)



### ■ Polycarbonate with sunshade roof top window



### ■ Air suspension (KAB seat)

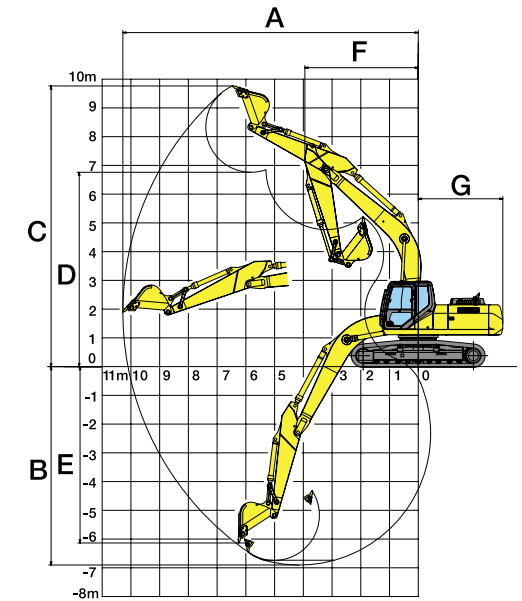


### ■ Rear view camera and monitor

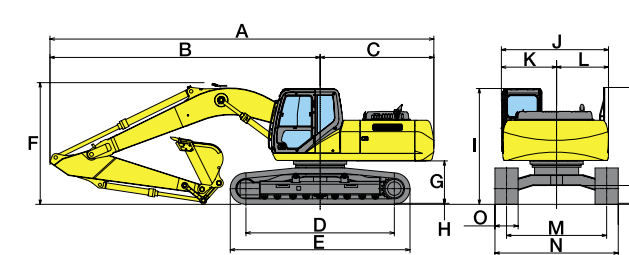


## Working Range

		SH240-5		
Arm length		2.50 m	3.00 m	3.52 m
Boom length		5.85 m		
A Max digging radius		9 820 mm	10 280 mm	10 790 mm
B Max digging depth		6 400 mm	6 900 mm	7 420 mm
C Max digging height		9 550 mm	9 760 mm	10 070 mm
D Max dumping height		6 550 mm	6 760 mm	7 060 mm
E Max vertical wall cut depth		5 700 mm	6 140 mm	6 680 mm
F Min. front swing radius		3 980 mm	3 980 mm	3 950 mm
G Rear end swing radius		2 950 mm		



## Dimensions



Model	SH240-5		
Arm length	2.50 m	3.00 m	3.52 m
A Overall length	9 980 mm	9 930 mm	9 910 mm
B Length from center of machine (to arm top)	7 040 mm	6 990 mm	6 970 mm
C Upper structure rear end radius	2 940 mm	2 940 mm	2 940 mm
D Center to center of wheels	3 840 mm	3 840 mm	3 840 mm
E Overall track length	4 650 mm	4 650 mm	4 650 mm
F Overall height	3 310 mm	3 150 mm	3 310 mm
G Clearance height under upper structure	1 100 mm	1 100 mm	1 100 mm
H Shoe lug height	26 mm	26 mm	26 mm
I Cab height	3 000 mm	3 000 mm	3 000 mm
J Upper structure overall width	2 770 mm	2 770 mm	2 770 mm
K Width from center of machine (left side)	1 430 mm	1 430 mm	1 430 mm
L Width from center of machine (right side)	1 340 mm	1 340 mm	1 340 mm
M Track gauge	2 590 mm	2 590 mm	2 590 mm
N Overall width	3 190 mm	3 190 mm	3 190 mm
O Std. Shoe width	600 mm	600 mm	600 mm
P Minimum ground clearance	460 mm	460 mm	460 mm
Q Handrail height	3 020 mm	3 020 mm	3 020 mm