

SUMITOMO

SH 80BS-7

Operating Weight
8,720 kg

Bucket Capacity
0.28-0.34 m³

Engine Rated Power
50.7 kW

HYDRAULIC EXCAVATOR FOR REAL PERFORMANCE
LEGEST

What is SUMITOMO?

The SUMITOMO Group traces its origins to the copper ore mining and smelting business established 430 years ago during the Edo period when Japan was ruled by the Samurai. Over the centuries, it has evolved into a multi-industry group, with diverse divisions offering various opportunities for skilled craftsmen and craftswomen.



SUMITOMO Construction Machinery, a proud member of the SUMITOMO Group with over 400 years of history, entered the construction equipment industry nearly half a century ago.

1964 LS78

In 1963, SUMITOMO partnered with Link-Belt, a prominent American construction equipment company, to enter the hydraulic excavator manufacturing sector.



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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.



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EU Stage V

Advances Abound. Innovation Infinite.

Exhilarating mobility with superior safety, comfort and efficiency.

Sumitomo compact excavator delivers tomorrow's capabilities today.

Designed with sophisticated agility to deliver the best performance on future worksites. Sumitomo excavator has been continuously refined to exceed itself in the quest for even greater control precision. Even better operator comfort and socially conscious design, coupled with eco-friendly efficiency and the ultimate in smooth, adaptable operations. Enhanced capabilities that will captivate any operator seeking to progress to a new stage.



Advanced Energy Efficiency and Eco-friendly Operation

The combination of the advanced clean engine "SPACE 5 α" and SUMITOMO's proprietary hydraulic system "SIH:S α" achieves much higher operating efficiency and superior fuel economy. These features also mean the excavator is even easier on the environment and worksites.



Faster Operations and Excellent Fuel Economy!

Fuel-efficient clean engine "SPACE 5 α"

The clean engine "SPACE 5 α" achieves significant reductions in exhaust gas emissions, meeting European Stage V non-road emission standards (EU Stage V), deemed the toughest emissions standards in the world. The SH80BS-7 series excavator has been designed to be even more environmentally friendly.

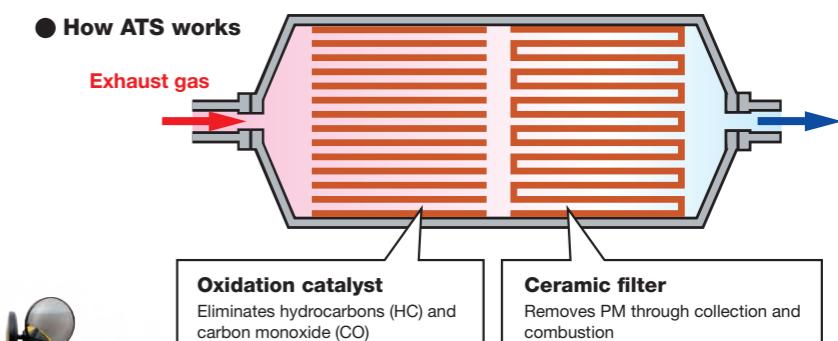
Meets EU Stage V standards

PM: 40% reduction

(compared to SH80BS-6A)

ATS for eliminating PM emissions

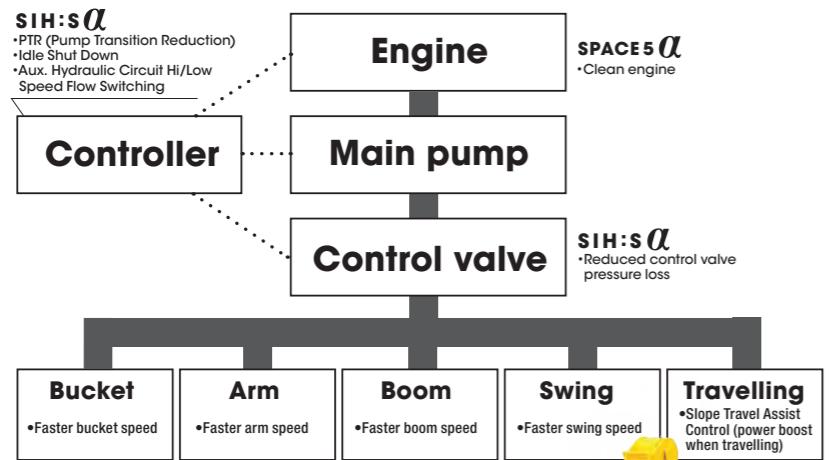
Features an exhaust ATS (After Treatment System) that collects and burns PM contained within the exhaust gas. Filter cleaning control automatically burns any PM as it builds up.



Advanced Energy Efficiency and Eco-friendly Operation

Innovative Hydraulic System "SIH:S α"

An innovative hydraulic system has been used, with pumps perfectly matched to the engine for much faster operating speed, real digging power and predictable control exactly as the operator intends. This makes work more even more efficient and significantly lower fuel consumption.



Three Working Modes for Economic Operation or Work Efficiency

Three working modes are available: SP (Super Power) for faster operations, H (Heavy) for heavy duty applications, and A (Auto) for fuel efficiency across a wide range of operations.

Six levels are shown for A mode, making it easier to select the right mode for any jobsite.



Integrated Throttle Mode Selector

The throttle mode can be selected by simply turning the knob, so anyone can easily choose the optimum working mode.



Unprecedented Operating Performance

The Innovative Hydraulic System "SIH:S a" provides a stunning new level of performance on job sites. This ensures optimum engine and pump operation for precision control across the entire operating range. The excavator responds exactly as the operator is expecting, with predictable speed, digging power and movement streamlining work on any job site.



Designed for Superior Working Speed



The hydraulic control system has been enhanced and optimised to deliver the equivalent cycle time as previous models renowned for their speedy capabilities, resulting in even greater work site efficiency.

Superior Workload and Productivity

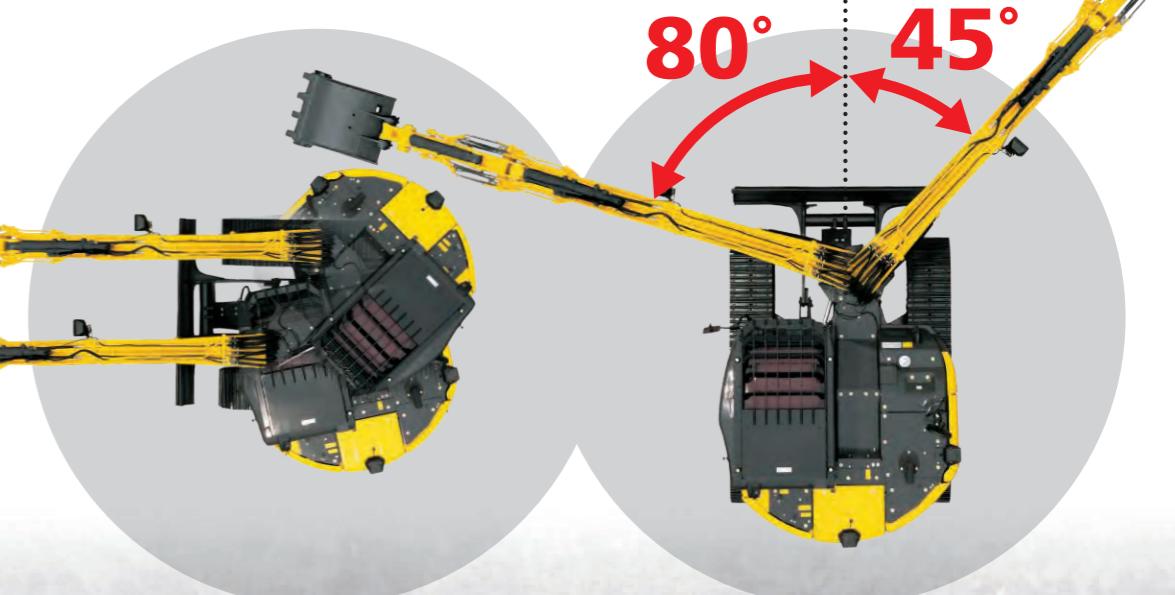
The hydraulic control system has been optimised for maximum productivity. The system prioritises controls when work calls for careful handling, thus achieving both high volume and delicate operations, resulting in even greater work site efficiency.

Increased Digging Power

Pump power is reduced for low-load operations, and boosted for heavy-duty digging work. The faster response means more stress-free operations.

Mobility with Swing Boom Suited to a Diverse Range of Jobs

Intelligently designed for narrow urban spaces or job sites with many obstructions. Versatility and capability for working in confined areas, with a swing boom that can be positioned anywhere within a 125-degree arc.



Advanced Operator Comfort

A comfortable cabin has been designed to reduce operator fatigue, with the aim of relieving stress during work and ensuring greater relaxation during downtime. With features such as a spacious cabin interior, new high-definition monitor with smartphone-like usability, new air suspension seat, and unbelievably quiet operation, the cabin is both comfortable and intuitive to ensure a greater level of safety.



Spacious, Class-leading Cabin

Just like previous models, the cabin has been designed with features that are top of its class, all of which help to ensure a comfortable and stress-free space for the operator. Superior sound insulation throughout the cabin translates to top-class levels of silence within.

Automatic Air-conditioner

Fully automatic climate control maintains a comfortable temperature within the cabin. The optimal ducting layout and airtight cabin also help to boost air-conditioning efficiency.



New Air Suspension Seat

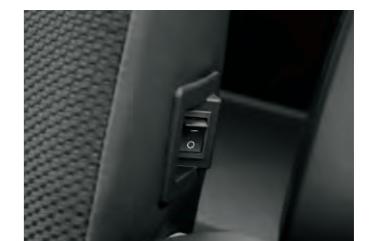
The operator's seat features air suspension as standard for outstanding ride comfort. A new high-performance reclining seat with higher seatback has been used to ensure premium comfort. A multitude of seat adjustments and ample seat cushion width all help to significantly lower operator fatigue. The high water-repellent seat material is also easier to keep clean.



Seat air suspension

Premium Comfort with Seat Heater (OPTION)

A seat heater function is now available as an optional extra for even greater comfort in cold seasons or working early mornings.



Seat heater switch

New Monitor—Even More Intuitive and User-friendly

A wide range of excavator operating and maintenance information, warnings and other data are displayed as text messages. Providing a way to view accurate and easy-to-understand information helps to boost operating efficiency and safety.



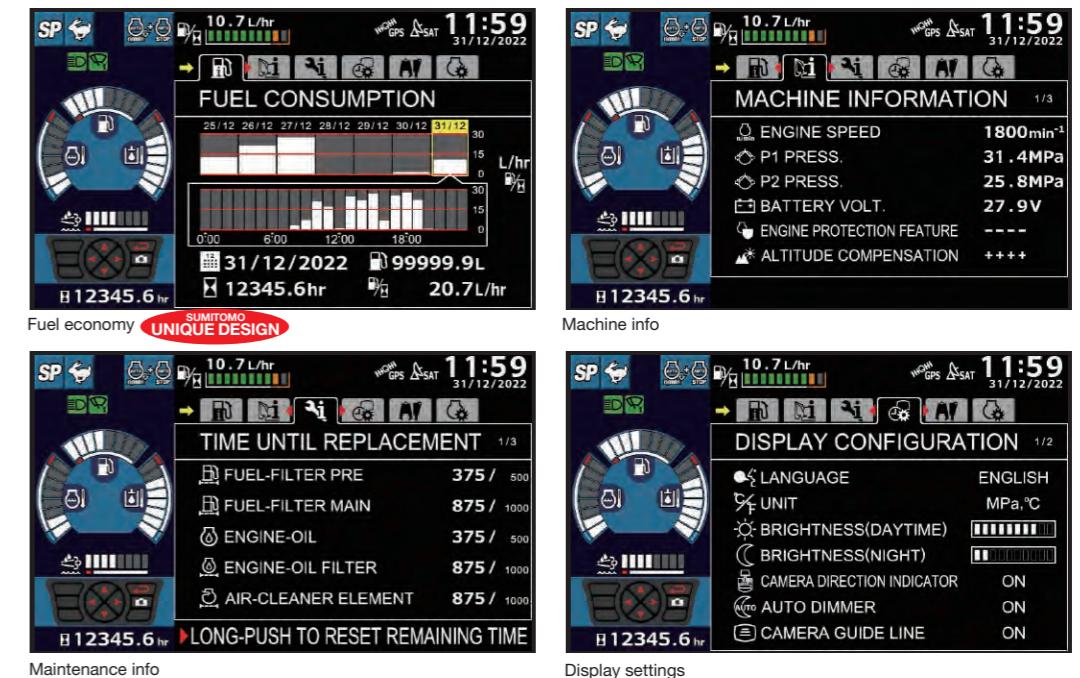
Indicators

- 1 Working modes
- 2 Icons
- 3 Warning messages
- 4 Engine coolant temperature
- 5 Fuel level
- 6 ATS warning
- 7 Camera view (rear camera)
- 8 Camera view (right side camera)

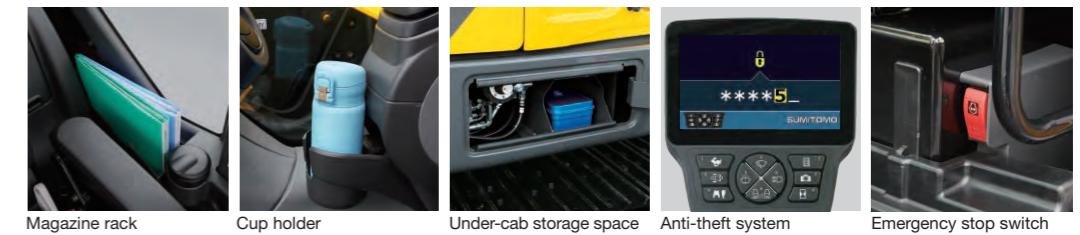
Switch Panel

- A Travel speed button
- B ATS purge
- C Aux. hydraulic settings
- D Window wiper
- E Window washer
- F Work lights
- G Auto idle/Idle stop
- H Display modes
- I Hour meter toggle (trip/total)

Illustrations of new monitor displays



Equipment for Comfort and Safety



Sophisticated Safety Features

The cabin provides excellent driving visibility, and features a high-strength design to better protect the operator. Every aspect has been designed for day-to-day safety, including excellent access in and out of the cabin, and steps and handrails to make inspections and maintenance easier.

The use of a new rear camera and LED cabin top light* also helps to ensure operations remain safe.

*Option

Wide View for Excellent Site Safety

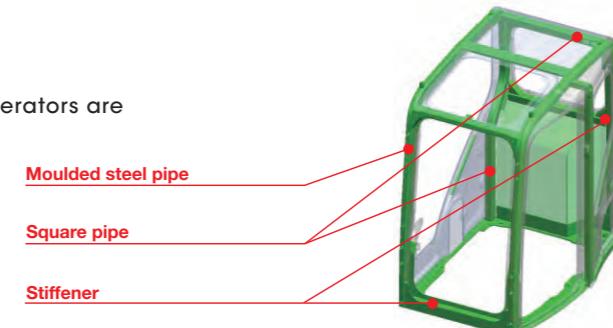
In addition to the front of the excavator, the cabin design gives the operator a wide, unrestricted view to check upper and lower areas.

Direct visibility for the operator means work can be performed safer.

Safe ROPS-compliant Cabin

A high-strength cabin design means operators are even better protected.

ROPS: Roll-Over Protective Structure



Rear and Right Side Cameras



Superb Access

The wide door opening and large handrails provide excellent access up to and down from the cabin. The spacious footwell also makes it easier to get in and out.



ISO-compliant hand grip and lower step

Lower step Hand grip

Large handrail and spacious footwell



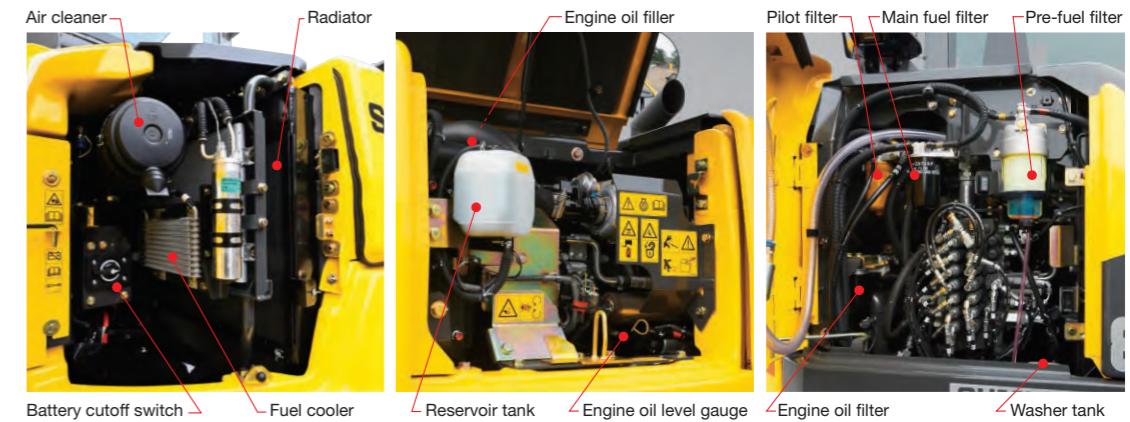
Superior Ease-of-maintenance and Durability

Easy maintenance and durability are the key to excavators that are called upon for ongoing work at job sites. With enhanced durability at every corner and proprietary EMS, outstanding reliability is standard with SUMITOMO excavators—they are designed to be easy to operate and maintain for customers, including features like ground level access.



Ground Level Access for Easy Inspections and Maintenance

Components requiring inspection are all in a central location, meaning inspections and refilling can be performed without having to climb up onto the excavator.



Dust-proof Net for Enhanced Ground Level Access SUMITOMO UNIQUE DESIGN

A dust-proof net mounted on the front of cooling package reduces the amount of dust adhesion, leading to a higher level of reliability. Ground level access means the dust-proof net can be quickly removed for easy cleaning.



High-Performance Return Filter

A long hydraulic oil change interval of 5,000 hours, and the use of a high-performance return filter ensures superior ease-of-maintenance.



Hydraulic oil change: 5,000 hours

Filter life: 2,000 hours

* The oil and filter change intervals vary depending on operating conditions.

Superior Ease-of-maintenance and Durability



EMS for Enhanced Maintenance of Joints

SUMITOMO UNIQUE DESIGN

SUMITOMO's EMS (Easy Maintenance System) has been used to ensure the excavator is always at the forefront of any work site. Special bushes keep joints lubricated and prevent rattling, and help give parts like bushes and pins a longer operating life. This extends the greasing interval of joints like around the bucket and other sections, thereby reducing the amount of maintenance required.

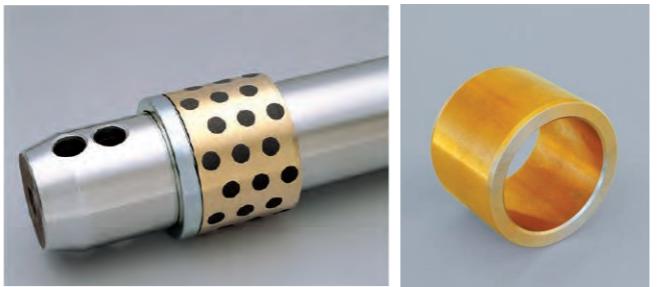
Greasing interval for bucket:

250 hours

Greasing interval for other sections:

1,000 hours

* The greasing interval varies depending on operating conditions.



Attachment EMS bushing with self-lubricating capability

Bucket EMS bushing (steel) with excellent wear resistance

Specifications

SH80BS-7 Technical Data

The electronic-controlled engine of SPACE 5 a and SIH:S a with New Hydraulic System Includes: three working modes (SP, H and A), and one-touch/automatic idling system.

Engine

SH80BS-7	
Model	YANMAR 4TNV98CT
Type	Water-cooled, 4-cycle diesel, 4-cylinder in line, high pressure common rail system (electric control), turbocharger, ATS
Rated output	50.7 kW at 2,000 min ⁻¹
Maximum torque	279 N-m at 1,300 min ⁻¹
Piston displacement	3.318 ltr (3,318 cc)
Bore and stroke	98 mm x 110 mm
Starting system	24 V electric motor starting
Alternator	24 V, 60 A
Air filter	Double element

Hydraulic pumps

Two variable displacement axial piston pumps provide power for boom/arm/bucket, swing, and travel. One gear pump for pilot controls.

SH80BS-7	
Maximum oil flow	2 x 74 ltr/min
Pilot pump max. oil flow	18 ltr/min

Hydraulic motors

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

Working circuit pressure

Boom/arm/bucket 29.4 MPa
Swing circuit 24.0 MPa
Travel circuit 29.4 MPa

Control valve

With boom/arm holding valve
One 5-spool valve for right track travel, bucket, boom, arm acceleration and boom swing
One 5-spool valve for left track travel, auxiliary, swing, boom acceleration and arm
One 1-spool valve for blade

Oil filtration

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

Hydraulic cylinders

SH80BS-7		
Cylinder	Q'ty	
Boom	1	Bore x rod diameter x stroke
Arm	1	115 mm x 75 mm x 850 mm
Bucket	1	100 mm x 65 mm x 755 mm
Boom Swing	1	85 mm x 55 mm x 665 mm
Blade	1	95 mm x 55 mm x 675 mm
		110 mm x 70 mm x 180 mm

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

Cabin & controls

The cabin is mounted on four fluid mountings. Features include safety glass front, rear and side windows, adjustable upholstered suspension seat with headrest and armrest, cigarette lighter, pop-up skylight window, and intermittent wiper with washer.

The front window slides upward for storage, and the lower front window is removable. Built-in type full-colour monitor display. Membrane switch on monitor display.

Swing

Planetary reduction is powered by an axial piston motor. The internal ring gear has a grease cavity for pinion. The swing bearing is a single-row shear type ball bearing. Dual stage relief valves are used for smooth swing deceleration and stops. A mechanical disc swing brake is included.

SH80BS-7

SH80BS-7	
Swing speed	0 - 10.4 min ⁻¹
Tail swing radius	1,680 mm
Swing torque	17 kN ·m

Undercarriage

An X-style carbody is integrally welded for strength and durability. The grease cylinder track adjusters have shock absorbing springs. The undercarriage has lubricated rollers and idlers.

Type of shoe: sealed link shoe

Upper rollers -
Heat treated, mounted on steel bushings with leaded tin bronze casting, 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 with each side frame; adjustment yoke mechanism fitted with heavy duty recoil spring.

Number of rollers and shoes on each side

SH80BS-7	
Upper rollers	1
Lower rollers	5
Track shoes	39

Travel system

Two-speed independent hydrostatic system with compact axial motors for increased performance. Hydraulic motor powered 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 the switch panel on the monitor display. Hydraulically released disc parking brake is built into each motor.

SH80BS-7

SH80BS-7	
Travel speed	High
	5.1 km/h
	Low
	3.2 km/h
Drawbar pull	59 kN

Lubricant & coolant capacity

SH80BS-7	
Hydraulic system	96 ltr
Hydraulic oil tank	51 ltr
Fuel tank	120 ltr
Cooling system	12 ltr
Final drive case (per side)	1.1 ltr
Engine crank case	12 ltr

Auxiliary hydraulic system

SH80BS-7			
Auxiliary piping type (option)	For Breaker	For Double (breaker & crusher) acting	For D/A + Second option line
Arm type	Reinforced	Reinforced	Reinforced
Bucket linkage type	HD	HD	HD
Auxiliary hydraulic pump flow	74 ltr/min	148 ltr/min	148+35 ltr/min

Specifications

Principle Specifications

		SH80BS-7	STD Specifications
Base	Boom length	3.50 m	
Base	Arm length	1.69 m	
Base	Bucket capacity (ISO heaped)	0.28 m ³	
Base	Std. operating weight	8,720 kg	
Engine	Make & model	YANMAR 4TNV98CT	
Engine	Rated output	50.7 kW/2,000 min ⁻¹	
Engine	Displacement	3.318 ltr	
Hydraulic System	Main pump	2 variable displacement axial piston pumps with regulating system	
Hydraulic System	Max. pressure	29.4 MPa	
Hydraulic System	Travel motor	Variable displacement axial piston motor	
Hydraulic System	Parking brake type	Mechanical disc brake	
Hydraulic System	Swing motor	Fixed displacement axial piston motor	
Performance	Travel speed (High/Low)	5.1/3.2 km/h	
Performance	Drawbar pull	59 kN	
Performance	Gradeability	70% <35°>	
Performance	Ground pressure	39 kPa	
Performance	Swing speed	10.4 min ⁻¹	
Performance	Bucket digging force	57 kN	
Others	Arm digging force	40 kN	
Others	Fuel tank	120 ltr	
Others	Hydraulic fluid tank	51 ltr	

Standard Equipment

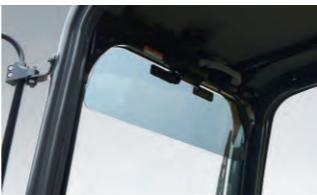
[Hydraulic system]
•SIH:S a hydraulic system
•Operation mode (SP, H and A mode)
•Automatic 2-speed travel
•Boom holding valve
•Arm reactivation circuit
•Automatic swing parking system
•Auxiliary valve
•High-performance return filter

[Cabin/interior equipment]
•4-point fluid mounts
•New full-colour LCD monitor
•Fresh-air intake pressurised full-automatic air conditioner
•Defroster
•High water-repellent seat
•Seat suspension
•Armrest & headrest
•Windscreen wiper (with intermittent operation function)
•Cup holder
•Magazine rack
•Accessory case
•Floor mat
•Ashtray & cigarette lighter
•Cab light (Auto-OFF function)
•Coat hook
•Operation lever with one-touch wiper switch
•Polycarbonate roof top window with sunshade

[Safety equipment]
•ROPS cab (FOPS level 1)
•Head guard (OPG Level 2)
•Rear/right side camera
•Rearview mirror (left/right)
•Emergency escape tool
•Retracting seat belt
•Gate lock lever (engine neutral start)
•Travel alarm
•Anti-theft alarm system
•Engine room firewall
•Fan guard
•Engine emergency stop switch

[Others]
•Auto/one-touch idling
•Auto idle shutdown system
•EMS
•Long-life hydraulic oil
•Two lights (right of boom, cab)
•Fuel filter (with water separator)
•Fuel pre-filter (with water separator)
•Double-element air cleaner
•Grease-enclosed track link
•Large tool box
•A set of tools

Accessories (option)

■ Cab-top lights (LED)		■ Camera lights (LED) (left rear, right rear)	
■ Front mesh guard (full)		■ Sun visor	
■ Front guard (OPG level 1 or 2)		■ Refuel pump	
■ Hose burst check valve (HBCV) for boom/arm cylinders			

Accessories and specifications may differ depending on countries and regions.

Bucket

Model		SH80BS-7	
Bucket capacity (ISO/SAE/PCSA heaped)		0.28 m ³	0.34 m ³
Bucket type		STD	STD
Number of teeth		4	4
Width	With side cutter	804 mm	934 mm
	Without side cutter	730 mm	860 mm
Weight		206 kg	223 kg
Combination	1.69 m arm	●	○
	2.19 m arm	△	×

● Standard bucket (Suitable for materials with density up to 1,800 kg/m³ or less)

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

△ Suitable for loading

×

Weight & ground pressure

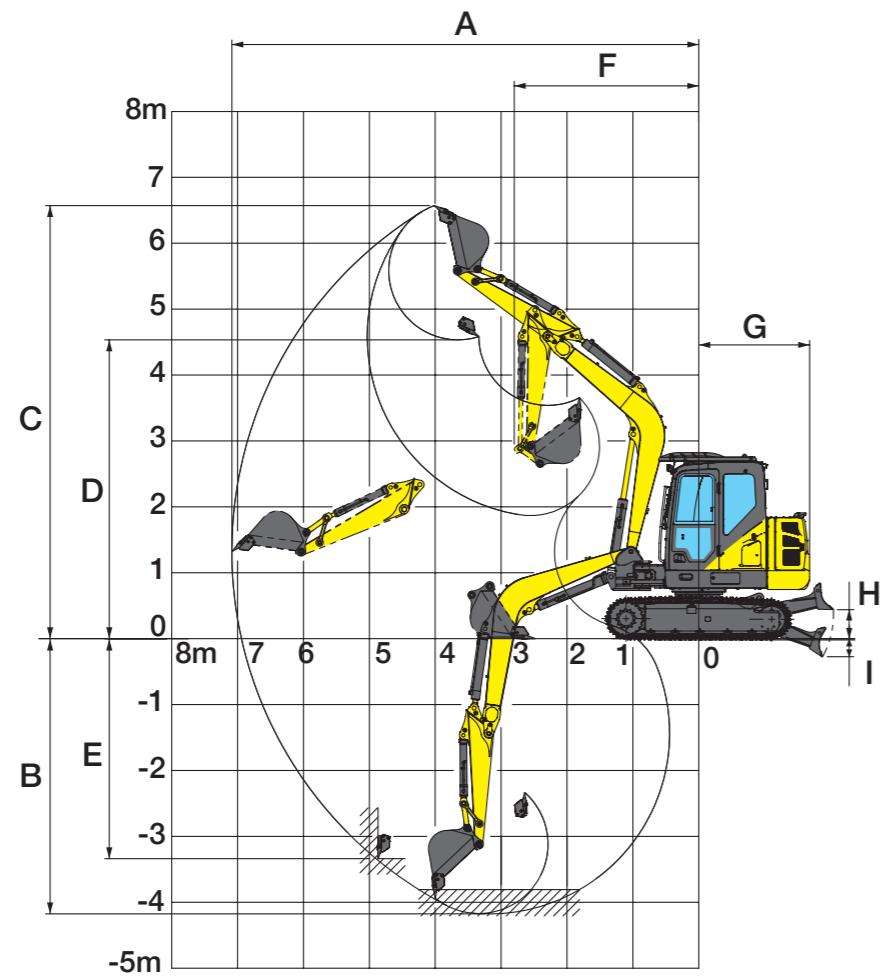
Model		SH80BS-7		
Shoe type		Shoe width	Overall width	Operating weight
Triple grouser shoe		450 mm	2,320 mm	8,720 kg

Digging force

Model		SH80BS-7	
Arm length		1.69 m	2.19 m
Bucket digging force	ISO 6015	57 kN	57 kN
Arm digging force	ISO 6015	40 kN	34 kN

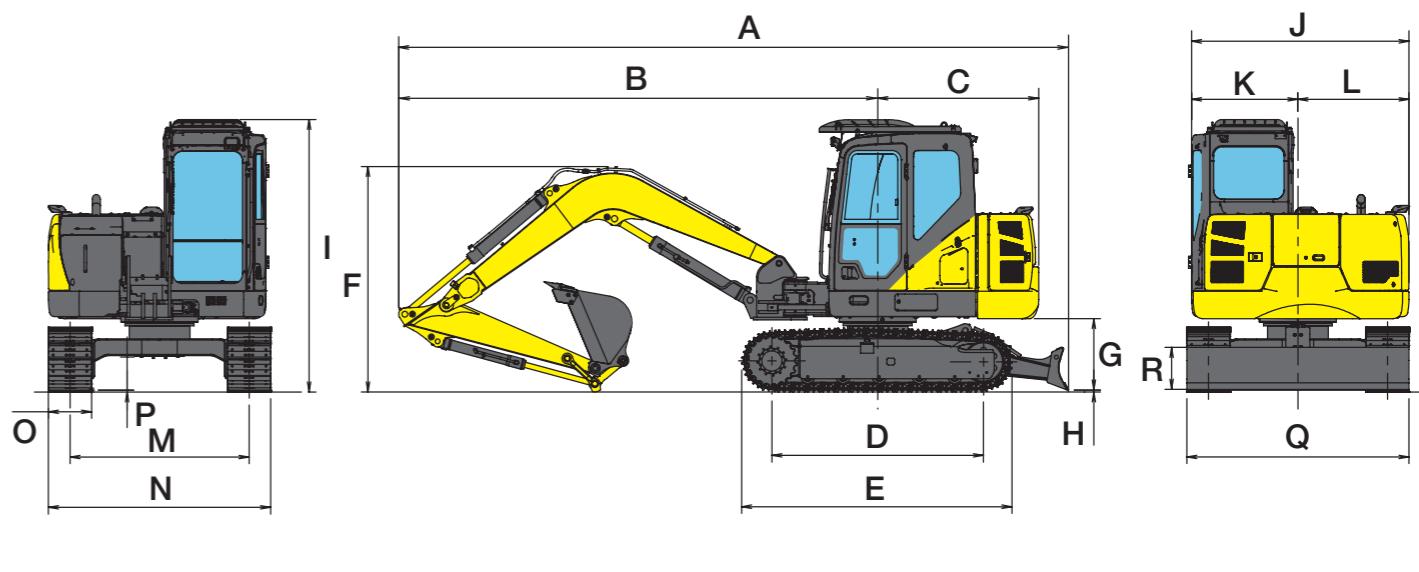
Specifications

Working Range



SH80BS-7		
Arm length	1.69 m	2.19 m
Boom length	3.50 m	
A Max. digging radius	7,090 mm	7,560 mm
B Max. digging depth	4,180 mm	4,670 mm
C Max. digging height	6,570 mm	6,890 mm
D Max. dumping height	4,530 mm	4,850 mm
E Max. vertical wall cut depth	3,340 mm	3,920 mm
F Min. front swing radius	2,800 mm	3,040 mm
G Rear end swing radius	1,680 mm	
H Max. lift above ground	440 mm	
I Min. drop below ground	275 mm	

Dimensions



Model	SH80BS-7	
Arm length	1.69 m	2.19 m
A Overall length	6,990 mm	7,040 mm
B Length from centre of machine (to arm top)	5,000 mm	5,050 mm
C Length from centre of machine (to rear end)	1,680 mm	
D Centre to centre of wheels	2,210 mm	
E Overall track length	2,845 mm	
F Height to top of boom	2,350 mm	2,760 mm
G Clearance height under upper structure	745 mm	
H Shoe lug height	20 mm	
I Overall height (to top of cab)	2,840 mm	
J Upper structure overall width	2,270 mm	
K Width from centre of machine (left side)	1,110 mm	
L Width from centre of machine (right side)	1,160 mm	
M Track gauge	1,870 mm	
N Overall width	2,320 mm	
O Std. shoe width	450 mm	
P Minimum ground clearance	345 mm	
Q Width of blade	2,320 mm	
R Height of blade	450 mm	