

KOBELCO

Performance  Design

SK39SR

- Bucket capacity:
0.10 m³
- Engine power:
18.9 kW / 2,400 min⁻¹
- Operating weight:
3,970 – 4,080 kg



Note: This catalogue may contain attachments and optional equipment that are not available in your area. And it may contain photographs of machines with specifications that differ from those of machines sold in your areas. Please consult your nearest KOBELCO distributor for those items you require. Specialist equipment is needed to use this machine in demolition work. Before using it please contact your KOBELCO dealer. Due to our policy of continuous product improvements all designs and specifications are subject to change without advance notice. Copyright by **KOBELCO CONSTRUCTION MACHINERY CO., LTD.** No part of this catalogue may be reproduced in any manner without notice.

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SK39SR-7_TUR_3E_2502



Complies with the EU Stage V
exhaust emission regulation

We Save You Fuel
Achieving a Low-Carbon Society

Performance Design

Mini excavator SK39SR of KOBELCO has realised a completely new value by harmonising PERFORMANCE and DESIGN.

Performance enhancements offer greater efficiency and productivity along with increased power and speed. Design improvements provide the ultimate in comfort and control.

KOBELCO refuses to compromise, creating machines that meet every challenge.



UNFORGETTABLE COMFORT

Our pursuit of functional beauty and aesthetic sense produced a new interior design.



Air suspension seat

A proven GRAMMER* suspension seat is fitted as standard, offering a reclining mechanism, shock absorber, and excellent seating comfort.

Wrist rests

The enlarged wrist rests keep the operator's forearms in a stable position, reducing fatigue during operation, and allowing stable operation.



Air conditioner

Additional air vents provide an air flow to envelop the operator's body. In addition, the defrosters placed in front, right and back have also been improved to ensure visibility when the air conditioner is in use.



LED Illumination

Dials and buttons are now backlit to provide a bright, clear view in any lighting condition.



Smartphone holder/ USB/AUX port

*GRAMMER is trademark of GRAMMER AG. registered in Germany and other countries.

FUNCTIONAL WORK ENVIRONMENT

Realisation of the operator's convenience and comfort.



Colour monitor

A colour display with good readability comes as standard and shows various information such as operating history, maintenance cycle, and fuel and water temperature gauges. It can also be used to adjust the hydraulic oil flow to the attachments.



Energy conservation mode

There are 2 working modes: one for maximum power, and ECO-mode for increased fuel economy.



Auto deceleration

Auto deceleration saves fuel and lowers engine noise by lowering engine speed to idle.



Hydraulic flow adjustment (Option)

Rotation or N&B piping flow can be selected from six preset types, or adjusted arbitrarily.



Engine start password

A password is required when starting the engine for greater security.



Maintenance information



Operation history

Easy-access cab

The hinged door is adopted to provide large entrance space. Furthermore, the flip-up left console with integrated pilot control lock lever allows for easy entry and exit from the cab.



Ergonomic lever angles

Operators can move levers horizontally without twisting their wrists, reducing fatigue.



Slide-open window

The right side window can slide open from the front or the back for increased ventilation and to hear ground workers when required.



Speaker



DAB+ radio (FM/AM & AUX & USB & Bluetooth® & hands-free telephone)



12V power outlet



Coat hook



Cup holder



Utility box



LED door light



Front under glass holder

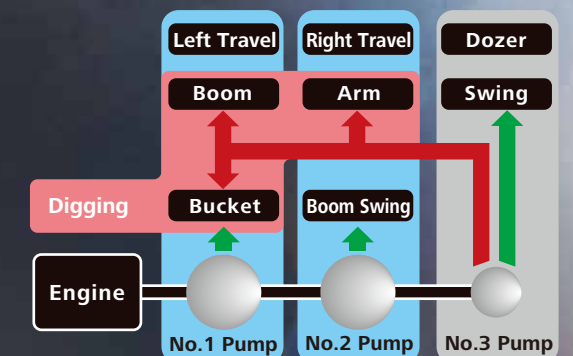


Smoother operation

The new hydraulic system improves levelling performance and makes levelling work easier than with conventional machines when heavier attachments are installed.

Integrated-Flow Pump System

During the digging operation, depending upon job condition, the machine provides the additional flow to the boom, arm or bucket circuit, from No.3 pump (swing and dozer pump), to increase available input power to those functions.



EXPERIENCING A COMPETENT PERFORMANCE

The new hydraulic system

Compared to previous models, the new hydraulic system is significantly improved, which thereby shortens the digging cycle time remarkably. It attains high performances without reducing the speed even when a heavy load is applied.

By replacing the bucket cylinder, the bucket digging force is increased.

»»» Bucket digging force

Raised by **16%**

(Compared to previous models)

The engine output is increased compared to previous models, providing extra power.

»»» Engine output

18.9 kW / 2,400 min⁻¹

The newly adopted ECO-mode saves even more energy.

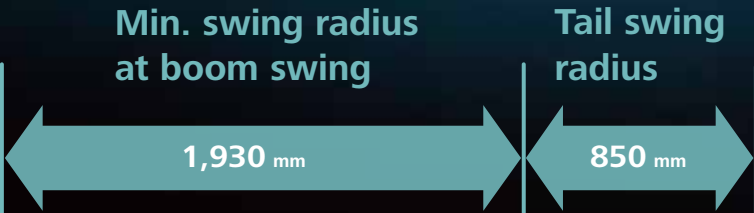
»»» Fuel consumption

Reduced by **25%**

(Compared to H-mode)



COMPACT, YET, BIG PERFORMANCE

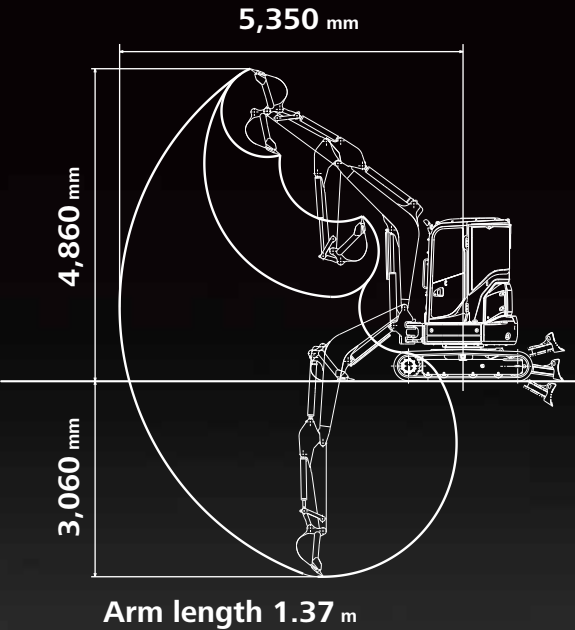


Figures above show the values for cab with standard arm spec.



Short tail swing
The compact tail swing improves operating efficiency in limited space.

Tail overhang
0 mm (90 mm)
(without rear view mirror)
Figure in () shows the value with additional counterweight.



Wide working range
Long arms are provided as option equipment to ensure a wide working range.

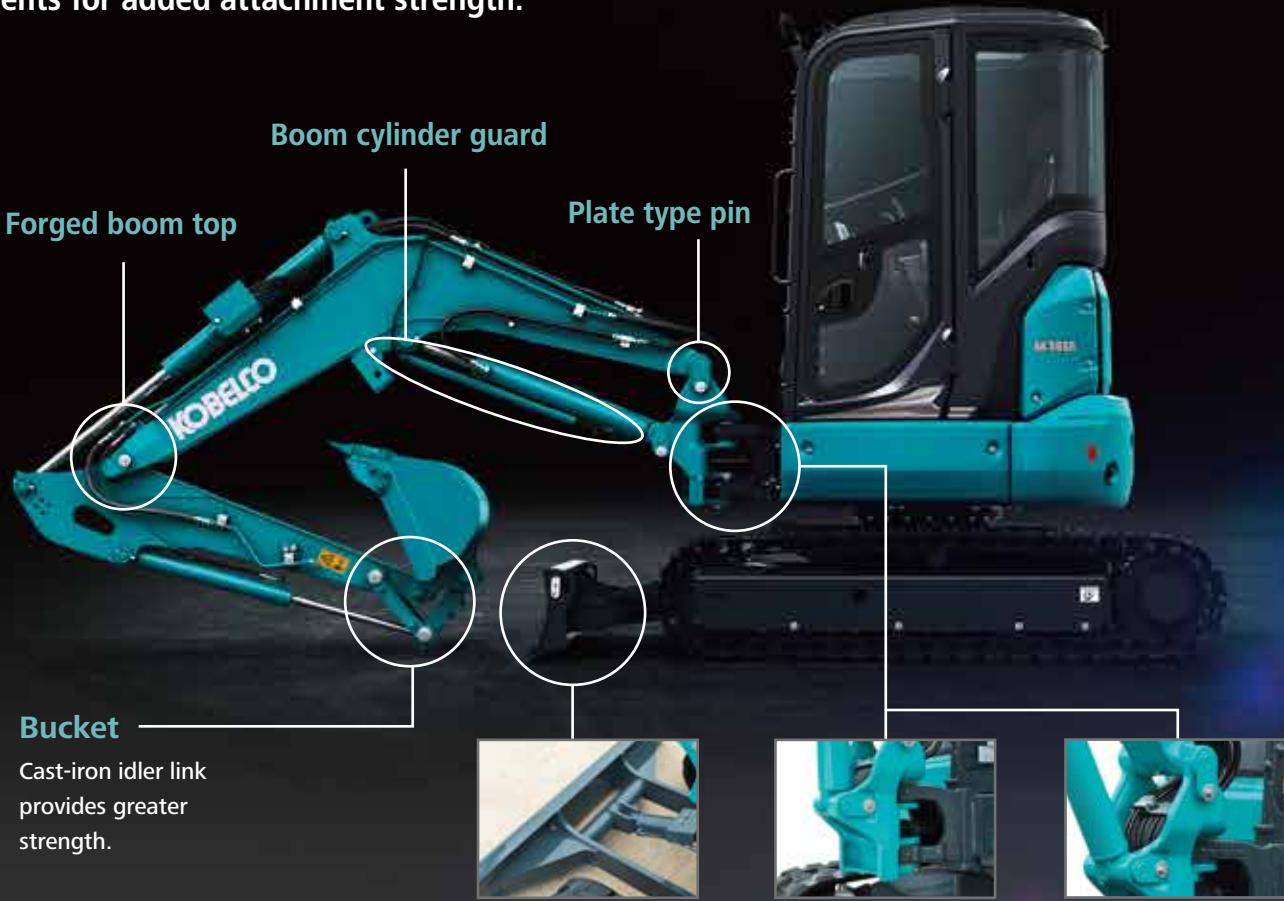
VERSATILITY



Dozer lever
The new ergonomic dozer lever has 1st/2nd travel speed select switch integrated into the handle for easier dozer functions.

RELIABLE CONSTRUCTION

The boom, arm and swing bracket all have large cross-section segments for added attachment strength.



Bucket
Cast-iron idler link provides greater strength.



Dozer
Reinforced dozer supports provide greater strength.

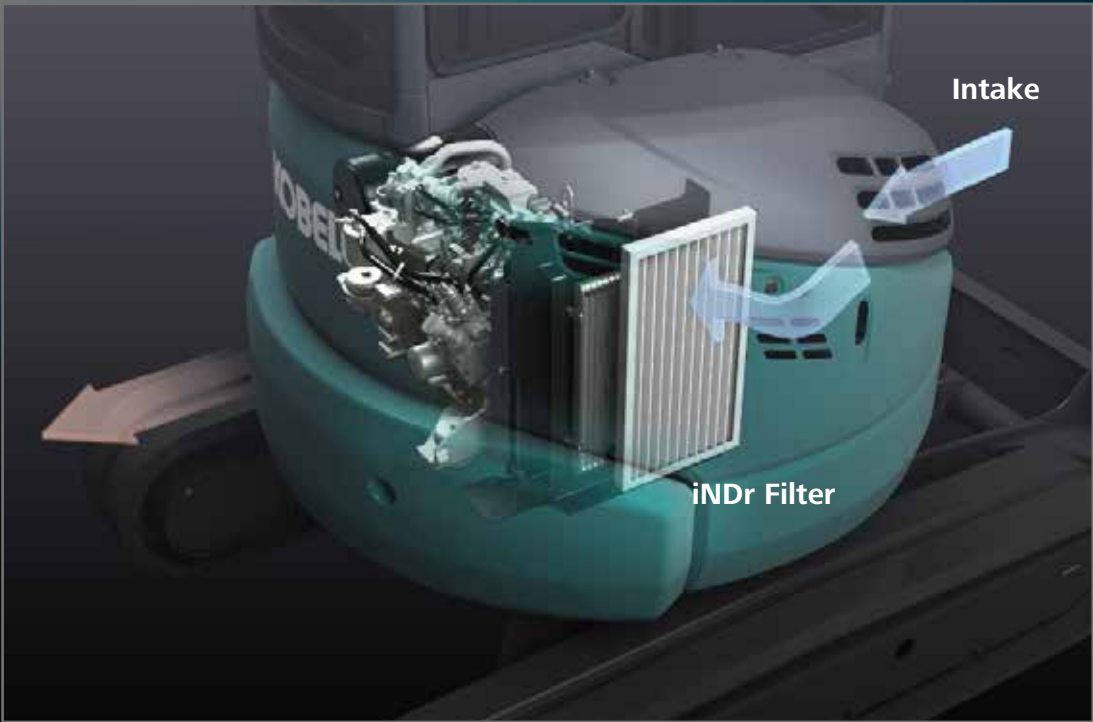


Swing bracket
Large, thick cast-iron swing bracket/front bracket.



Hydraulic hosing
The hydraulic hosing is housed inside the swing bracket for protection.

NON-STOP OPERATION BY iNDr



Ultimate low noise

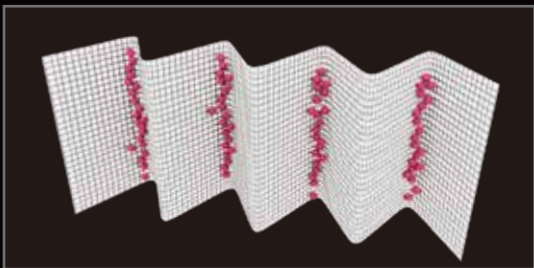
KOBELCO's exclusive iNDr Cooling System delivers amazingly quiet operation.

Sound Power Level



iNDr

A high-density mesh filter blocks dust intruding during air intake. This prevents the cooling device and the air cleaner from clogging with dust and maintains their performances. The ridges of the corrugated filter allow the air to pass through, and the grooves collect the dust, which prevents the filter from clogging.



The iNDr filter has a high-density mesh of 30 lines per inch to collect dust.

EASY MAINTENANCE

Easy daily maintenance that saves the trouble of inspection and cleaning.



Easy Access to Component Inside the Cab



Hour meter



Cab fresh air intake filter



Cab re-circulation air filter



Operator manual storage pockets



Easy Access to Cooling Unit



iNDr filter

Laid out for easy access to radiator and cooling system.

Easy Access to Engine Compartment



- ① Pre fuel filter with built-in water separator
- ② Air cleaner
- ③ High-grade fuel filter



OPERATOR SAFETY



Reliable cab structure

The high-strength cab meets ROPS, TOPS and OPG Level 1 (Top guard) standards for greater operator safety.



LED work light

Changed from halogen light to LED light for more brightness.



Safety valve for boom cylinder



Safety valve for arm cylinder



Rear wiper



Good visibility

The wiper mount has been moved to the upper right of the cab support and the skylight opening has been enlarged, improving visibility to the front and above.



Rear view mirror (Option)



Rear under mirror (Option)



Emergency escape hammer



Accumulator for emergency attachment lowering

An installed accumulator allows the attachment to be safely lowered to the ground using in-cab controls in the event of an unexpected engine shut-down and class leading smooth operation.

SK39SR

Standard and Optional Equipment

●=Std ○=Opt

Category	Description	SK39SR-7
ENGINE	YANMAR 3TNV88 (EU Stage V compliant)	●
	Alternator 12 V /40 A	●
	Starter motor 12 V/1.7 kW	●
	Battery 1x 12 V (80 Ah)	●
	Fan suction type cooling system	●
	iNDr system	●
	Auto deceleration function	●
	Accelerator dial	●
	ECO-mode	●
	Engine start password	●
HYDRAULIC SYSTEM	Integrated-Flow Pump System	●
	Foot control (for N&B piping)	●
	Hydraulic oil VG46	●
PIPING	N&B piping + OHK	●
CABIN	Air suspension seat	●
	Headrest	●
	Retractable seatbelt	●
	Multi-function color display	●
	LED door light	●
	Air-conditioner	●
	DAB+ radio(FM/AM & AUX & USB & Bluetooth® & hands-free telephone)	●
	Cup holder	●
	Coat hook	●
	Smart phone holder	●
	USB/AUX port	●
	12V power outlet	●
	Harness for cab beacon light	●
	Sun screen	●
LIGHTS	LED work lights ; 1 on boom, 1 on cab top front	●
WORKING EQUIPMENT	Standard boom (2.47 m)	●
	Standard arm (1.37 m)	●
	Long arm (1.67 m)	○
COUNTER WEIGHT	Standard C/W	●
	Additional C/W (+250 kg)	○
UNDERCARRIAGE	300mm rubber shoe	○
	300mm steel shoe	●
	Dozer blade (1,700 mm)	●
SAFETY EQUIPMENT	Cab (ROPS(ISO 3471 : 2008)	●
	Front guard	○
	Top guard	○
	Safety valve for Boom & Arm cylinder + bucket link with lifting hook + overload alarm	●
	Rear view mirror (left)	○
	Rear under mirror (right rear)	○
	Travel alarm	○
	Rear wiper	●
	Emergency escape hammer	●
	Boom cylinder rod guard	●
OTHERS	Arm & bucket cylinder rod guard	○
	RAL colour	●

Note: The air conditioning system on this machine contains fluorinated greenhouse gas HFC-134a (GWP 1430). Quantity of gas 0.6 kg (CO2 equivalent 0.9 t). Bluetooth® is a registered trademark of the Bluetooth SIG Inc.

Specifications

SK39SR



Engine

Model	YANMAR 3TNV88
Type	Four-cycle, water-cooled, direct injection diesel engine, complies with EU Stage V exhaust emission regulation
No. of cylinders	3
Bore and stroke	88 mm x 90 mm
Displacement	1,642 ml
Rated power output	17.9 kW / 2,400min ⁻¹ (ISO 9249 : with fan) 18.9 kW / 2,400 min ⁻¹ (ISO 14396: without fan)
Max. torque	88.0 N•m / 1,440 min ⁻¹ (ISO 14396: without fan)



Hydraulic system

Pump	
Type	Two variable displacement axial piston pumps + one gear pump + pilot pump
Max. discharge flow	2 x 38.4 L/min, 1 x 19.2 L/min, 1 x 10.8L/min
Relief valve setting	
Boom, arm and bucket	23.0 MPa {235 kgf/cm ² }
Travel circuit	23.0 MPa {235 kgf/cm ² }
Swing circuit	20.0 MPa {204 kgf/cm ² }
Control circuit	3.5 MPa {36 kgf/cm ² }
Pilot control pump	Gear type
Main control valve	10 -Spool valve
Oil cooler	Air cooled type



Swing system

Swing motor	One fixed displacement piston motor
Brake	Hydraulic; locking automatically when the swing control lever is in the neutral position
Parking brake	Wet multiple plate
Swing speed	8.2 min ⁻¹
Swing torque	7.0 kN•m
Maximum swing gradient (Loaded)*	28 % {16 °}

*Value for the least favourable specification



Travel system

Travel motors	Two Variable displacement piston motor
Travel brakes	Hydraulic brake
Parking brakes	Wet multiple plate
Travel shoes	45 each side
Travel speed	4.3/2.4 km/h (steel shoe)
Rated drawbar pull	38.0 kN (SAE J 1309)
Gradeability	58 % {30 °}



Cab & control

Cab	
All-weather, insulated floor mat.	
Control	
Two hand levers and two foot pedals for travel	
Two hand levers for excavating and swing	
Electric rotary-type engine throttle	
Foot control (for boom swing)	
Foot control (for N&B piping)	
Dozer lever	
Noise levels	
External	93 dB(A) (2000/14/EC)
Operator	81 dB(A) (ISO 6396)



Boom, arm & bucket

Boom cylinders	85 mm x 582 mm
Arm cylinder	80 mm x 677 mm
Bucket cylinder	70 mm x 507 mm
Swing cylinder	80 mm x 477 mm

bore x stroke



Dozer blade

Dozer cylinder	90 mm x 180 mm
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bore x stroke



Refilling capacities & lubrications

Fuel tank	42 L
Cooling system	3.8 L
Engine oil	6.7 L
Travel reduction gear	2 x 0.6 L
Hydraulic oil tank	20.4 L tank oil level 44.8 L hydraulic system

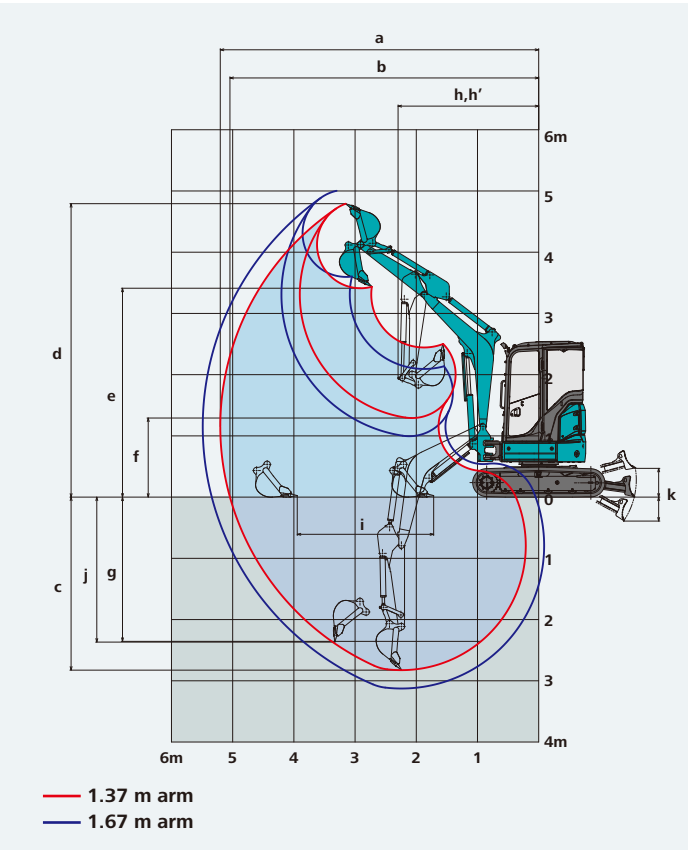


Working ranges

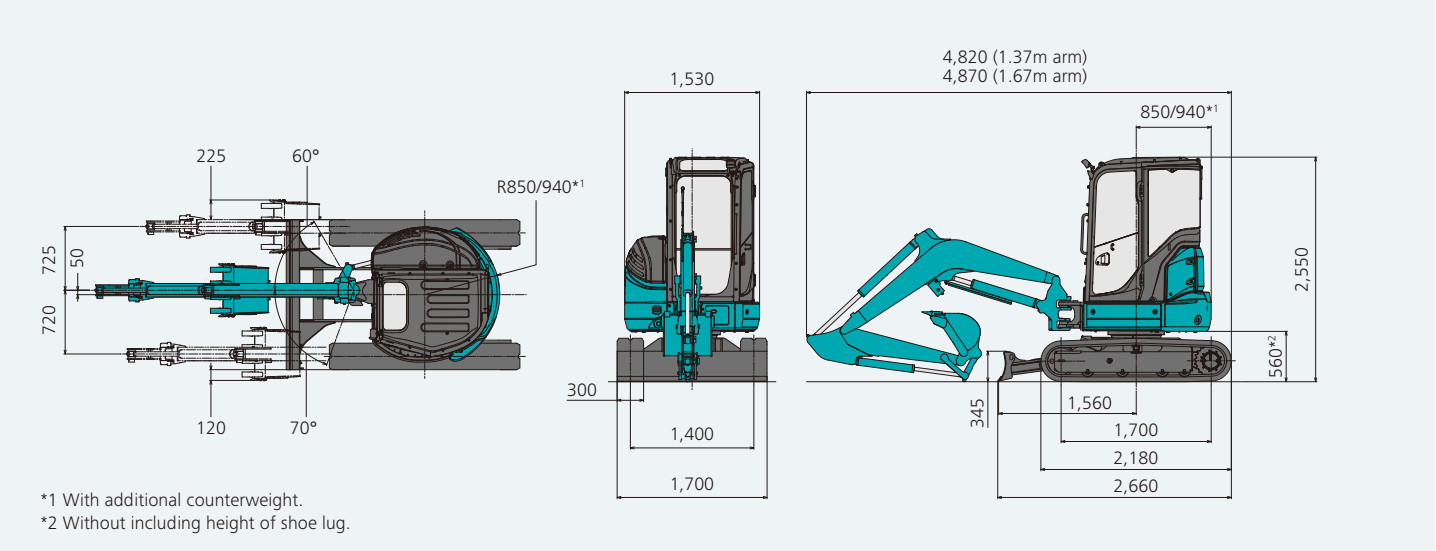
	Unit: mm	
Range	Arm	
	1.37 m	1.67 m
a- Max. digging reach	5,350	5,640
b- Max. digging reach at ground level	5,200	5,490
c- Max. digging depth	3,060	3,350
d- Max. digging height	4,860	5,050
e- Max. dumping clearance	3,480	3,670
f- Min. dumping clearance	1,300	1,010
g- Max. vertical wall digging depth	2,490	2,760
h- Min. swing radius at boom straight	2,320	2,330
h'- Min. swing radius at boom swing	1,930	1,940
i- Horizontal digging stroke at ground level	2,400	2,860
j- Digging depth for 2.4 m (8') flat bottom	2,600	2,930
k- Dozer blade (height/depth) (mm)	470/390	

Digging force (ISO 6015)

	Unit: kN	
Arm length	1.37 m	1.67 m
Bucket digging force	32.2	
Arm crowding force	22.4	19.5



Dimensions



Unit: mm

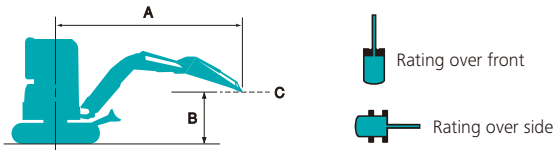
Operating weight & ground pressure

In standard trim, with standard boom, standard arm, and 0.10 m³ (80 kg) bucket

Shaped		Steel shoe	Rubber shoe
Shoe width	mm	300	
Overall width of crawler	mm	1,700	
Ground pressure	kPa	35.8	34.8
Operating weight	kg	4,080	3,970

Lift capacities

SK39SR



SK39SR		Arm: 1.37 m Standard counterweight Rubber shoe: 300 mm										
B \ A		1.0 m		2.0 m		3.0 m		4.0 m		At max. reach		Radius
4.0m	kg									*830	770	3.32m
3.0m	kg							610	570	570	530	4.15m
2.0m	kg					930	860	590	560	480	450	4.54m
1.0m	kg					870	800	570	530	460	430	4.64m
G.L.	kg			1,600	1,430	830	770	550	510	480	450	4.46m
-1.0m	kg	*2,290	*2,290	1,620	1,450	830	770			570	530	3.96m
-2.0m	kg			*1,540	1,500					*890	840	2.90m

SK39SR		Arm: 1.67 m Standard counterweight Rubber shoe: 300 mm										
B \ A		1.0 m		2.0 m		3.0 m		4.0 m		At max. reach		Radius
4.0m	kg									680	640	3.74m
3.0m	kg							620	580	500	470	4.48m
2.0m	kg					*880	880	600	560	440	410	4.84m
1.0m	kg					870	800	570	530	410	390	4.92m
G.L.	kg			1,570	1,410	820	760	550	510	430	400	4.76m
-1.0m	kg	*1,870	*1,870	1,580	1,420	810	750	540	500	490	460	4.30m
-2.0m	kg	*3,070	*3,070	1,630	1,460	840	770			710	650	3.40m

SK39SR		Arm: 1.37 m Additional counterweight (+250 kg) Rubber shoe: 300 mm										
B \ A		1.0 m		2.0 m		3.0 m		4.0 m		At max. reach		Radius
4.0m	kg									*830	*830	3.32m
3.0m	kg							710	660	670	620	4.15m
2.0m	kg					*1,030	1,000	700	650	570	530	4.54m
1.0m	kg					1,010	940	670	620	540	510	4.64m
G.L.	kg			*1,650	*1,650	980	900	650	610	570	530	4.46m
-1.0m	kg	*2,290	*2,290	1,890	1,690	980	900			670	620	3.96m
-2.0m	kg			*1,540	*1,540					*890	*890	2.90m

SK39SR		Arm: 1.67 m Additional counterweight (+250 kg) Rubber shoe: 300 mm										
B \ A		1.0 m		2.0 m		3.0 m		4.0 m		At max. reach		Radius
4.0m	kg									*730	*730	3.74m
3.0m	kg							*680	670	590	550	4.48m
2.0m	kg					*880	*880	700	650	520	480	4.84m
1.0m	kg					1,020	940	670	620	490	460	4.92m
G.L.	kg			*1,650	*1,650	970	890	650	600	510	470	4.76m
-1.0m	kg	*1,870	*1,870	1,860	1,660	960	890	640	600	580	540	4.30m
-2.0m	kg	*3,070	*3,070	1,910	1,710	990	910			830	770	3.40m

1. Do not attempt to lift or hold any load that is greater than these lift capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lift capacities.
2. Lift capacities are based on machine standing on level, firm, and uniform ground. User must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, experience of personnel, etc.
3. Arm top defined as lift point.
4. The above lift capacities are in compliance with ISO 10567. They do not exceed 87% of hydraulic lift capacity or 75% of tipping load. Lift capacities marked with an asterisk(*) are limited by hydraulic capacity rather than tipping load.
5. Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine. Rules for safe operation of equipment should be adhered to at all times.
6. Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.