KOBELCO

Hydraulic Excavator

SK70SR

Bucket Capacity: 0.11-0.28 m³ SAE Heaped
Engine Power: 40.5 kW (55 PS) at 2,100 min⁻¹
Operating Weight: 6,700 kg

Courtesy of Machine.Market

The SR Series: The Standard for Operation Within a Small Rear Swing Radius

Imagine a full-performance hydraulic excavator series with an ultra-small rear swing radius that allows the operator to focus on the job in front of him, even in narrow spaces. The KOBELCO SR Series is designed with precisely that in mind, and has won the unqualified approval of operators and owners on work sites throughout the world. SR Series machines offer all the benefits of small rear swing, but also do the same work as conventional models, providing optimal versatility. Carrying on the proud tradition of their predecessors, the new SK70SR machines represent a new standard in small rear-swing radius operation.

Courtesy of Machine.Market

Full-sized Performance With a Tiny Rear Swing Radius

Ultra-small Rear Swing Radius Lets You Concentrate on the Job

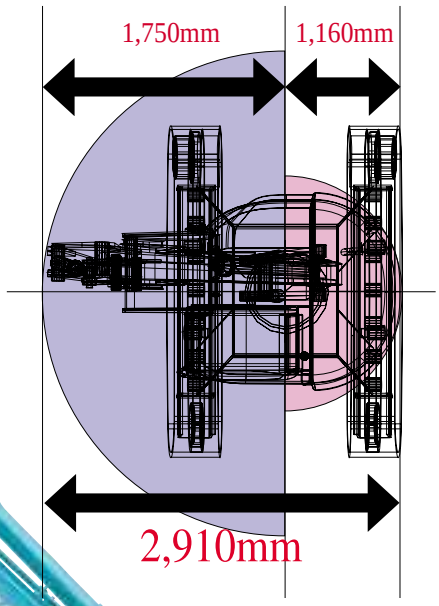
The rear of the upper carriage stays nearly within the crwaler width which provides you safer and more efficient operations during swinging.

Utilization boosted, with two benefits

There's less chance of colliding with onsite obstacles, and operations are possible at previously inaccessible locations such as tight up against walls or on forest, without constant worry about the rear. And owners win twice over, with a machine that does the same work as a conventional model, yet has the small rear swing advantage.

A Working Radius of Less Than 3 m

When swinging 180°, the SK70SR takes up less than four meters of operating space, making continuous digging, swinging, and loading operations possible on small worksites.

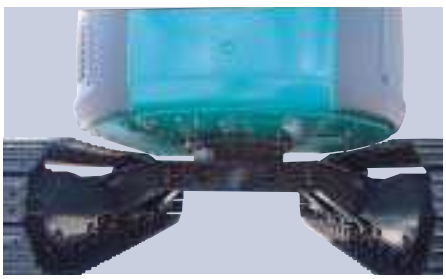


Three ITCS Operating Modes

Three operating modes are available with the simple flick of a button.
H-Mode for heavy digging
S-Mode for energy-efficient operation
FC-Mode for fine control

Excellent Stability and Performance

The floor of the upper frame is constructed with a single, thick steel plate that provides sure-footed stability.

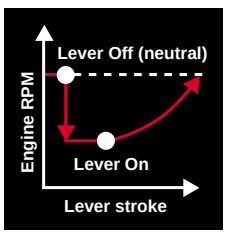


Automatic Two-speed Travel System

An automatic shift function ensures smoother, more efficient travel on the worksite.

High mode: 5.3 km/h
Low mode: 3.1 km/h

Automatic Deceleration Functionl



When the control lever is placed in neutral, engine speed is automatically reduced to save fuel, lower noise, and reduce exhaust gas emissions. When machine operation is resumed, the engine speed is increases gradually to ensure safety.

High-torque Travel Motors Provide Plenty of Power

First-gear torque has been increased by approximately 8% compared with previous models for plenty of travel power.

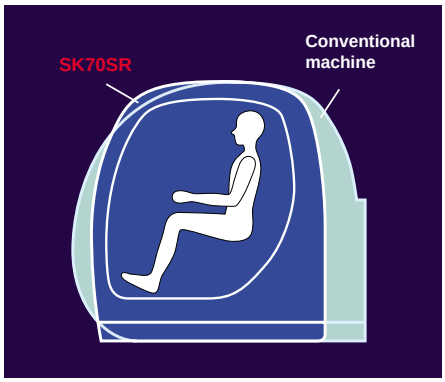
Courtesy of Machine.Market

Spacious, Quiet, and Comfortable Cab Makes the Difference

Spacious Comfort Cab Provides Plenty of Room

Though compact on the outside, the cab provides a comfortable and spacious working environment on the inside.

- *High head clearance for easy entry.*
- *Cab width and foot space comparable to conventional machines.*
- *Double-slide seat ensures optimal operating posture.*

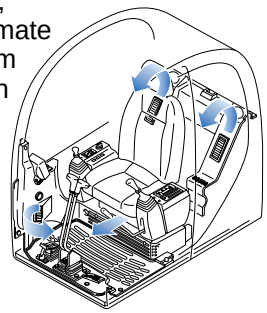


Low-noise, Low-vibration Design

Cab noise is a quiet 72dB(A), thanks to an insulation panel with deep grooves installed in the back. Vibration is also minimized with the help of sealed viscous cab mounts.

Automatic Climate Control System Provides Simple Environmental Control

The powerful, automatic climate control system equipped with a defroster.



4,100kcal/h in cooling mode
4,900kcal/h in heating mode

- *A rearview mirror sets to eliminate the usual dead angle behind the counterweight.*

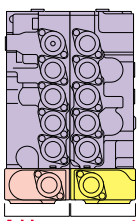
Wide-view Ensures Safe Operation

- *The area of the front window covered by the wiper has been increased by approximately 11%.*

Many Features That Ensure Comfort

- *Storage for small articles*
- *Large-capacity luggage box*
- *Pop-up sun roof*
- *Door-activated cab light*

Broad Versatility Makes It Easy to Choose the Ideal Configuration



Additional Service Valves

Optional double-action valves can easily to the control valve to meet versatile applications.

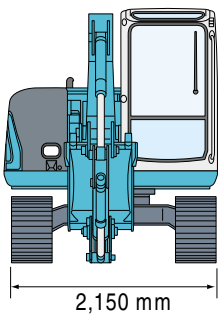
Optional Dozer Blade

The large dozer blade is very efficient at piling up earth and filling holes, and the dozer hose is jointed to make blade changes easy. The SK70SR also features a tilt-angle blade.

Optional Rubber-padded Shoes

The steel shoes have holes that hold specially designed rubber pads to protect the road surface.

Optional Narrow Track Specification



The SK70SR's crawler width is narrower than standard machines for easy entry into areas like residential demolition sites or forest where larger machinery can't fit.

SPECIFICATIONS

SK70SR

ENGINE

Model:	ISUZU CC-4JG1
Type:	Direct injection, water-cooled, 4-cycle diesel engine
No. of cylinders:	4
Bore and stroke:	95.4 mm × 107 mm
Displacement:	3,059 cc
Rated power output:	40.5 kW NET at 2,100 min^{-1} 55 PS NET at 2,100 rpm
Max. torque:	187 N•m at 1,800 min^{-1} 19 kgf•m at 1,800 rpm

HYDRAULIC SYSTEM

Pump:	Two variable displacement pumps
Max. discharge flow:	2 × 66 liters/min
Max. discharge pressure	
Excavating circuit (main):	29.4 MPa (300 kg/cm^2)
Propel circuit:	29.4 MPa (300 kg/cm^2)
Swing circuit:	24.5 MPa (250 kg/cm^2)
Control circuit:	3.43 MPa (35 kg/cm^2)
Pilot control pump:	Gear type
Control valves:	6-spool
Oil cooler:	Air cooled type (Finned tube, forced ventilation)

CAB & CONTROL

All-weather, sound suppressed steel cab is mounted on the silicon-sealed viscous mount. Large, tinted safety-glass windows, with pull type upper front window and removable lower front windows. Seven-way adjustable dual-slide seat with wrist-action levers, electric rotary-type engine throttle, safety-lock lever, and easy-to-read multi-display monitor. Ventilated, pressurized climate control system, floor mat, intermittent windshield wiper with two-jet washer, light-action cab door, skylight, ashtray, cab light (interior), coat hook, cup holder, and utility box.

TRAVEL SYSTEM

Drive motors:	Independent, axial-piston, two-step motor each side
Brakes:	Independent, disc parking brake for each side
Track shoes:	39 each side
Travel speed:	5.3/3.1 km/h
Gradeability:	70 % (35°)
Drawbar pulling force:	69.3 kN (7,070 kgf) (SAE J1309 MAY 91)

SWING SYSTEM

Brake:	Hydraulic, locking automatically when the swing control lever is in neutral position
Parking brake:	Hydraulic disc brake
Swing speed:	12.5 min^{-1}
Tail swing radius:	1,160 mm
Min. front swing radius:	2,090 mm

BOOM, ARM, AND BUCKET

Boom cylinder:	110 mm × 916 mm
Arm cylinder:	95 mm × 813 mm
Bucket cylinder:	80 mm × 735 mm

DOZER BLADE (Optional)

Dimensions:	2,320 mm (width) × 470 mm (height)
Working range (up/down):	360 mm × 230 mm

REFILLING CAPACITES AND LUBRICATION

Fuel tank:	85 liters
Cooling system:	10 liters
Engine oil:	10 liters
Track drives:	2 × 1.7 liters
Swing drive:	1.5 liters
Hydraulic oil	
Tank (oil level):	55 liters
Hydraulic system:	78 liters

ATTACHMENTS

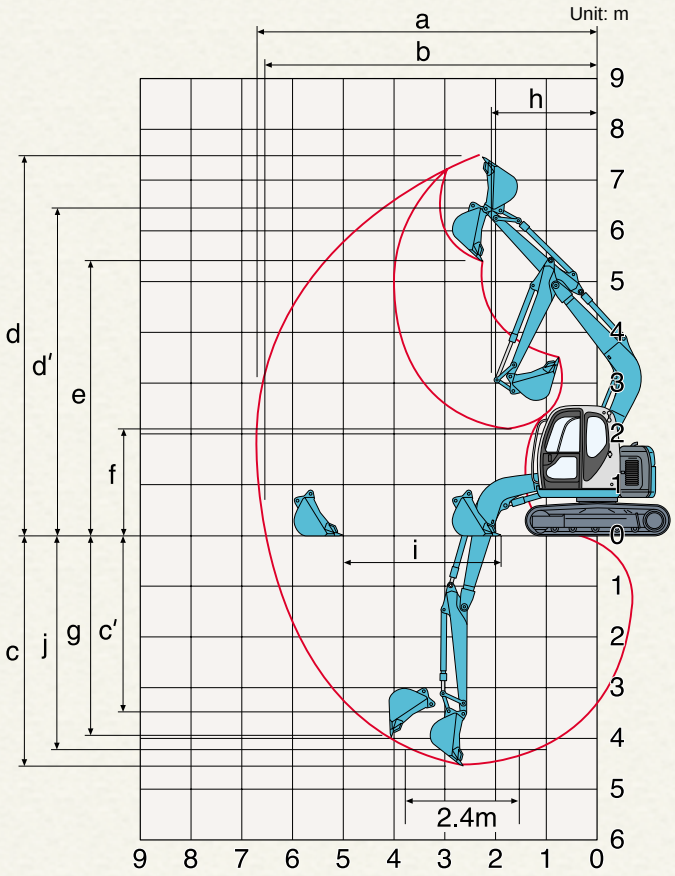
Uses			Backhoe bucket				
			General purpose				
Bucket capacity (SAE heaped)		m^3	0.11	0.14	0.18	0.22	0.28
Bucket capacity (Struck)		m^3	0.10	0.12	0.14	0.18	0.22
Opening width	With side cutters	mm	—	480	550	650	750
	Without side cutters	mm	400	410	480	580	680
No. of bucket teeth			3	3	3	4	4
Combinations	1.65m arm		○	○	○	○	○
	2.07 m arm		○	○	○	○	×
	1.65 + 0.5 m arm		○	○	○	○	×

○ Recommended × Not recommended

WORKING RANGES

Unit: m

Arm / Range	Standard 1.65 m	2.07m	1.65 m + 0.5 m
a - Max. digging reach	6.31	6.71	6.76
b - Max. digging reach at ground level	6.17	6.57	6.63
c - Max. digging depth	4.10	4.52	4.60
c'- Max depth of bucket hinge pin	3.056	3.476	3.556
d - Max.digging height	7.18	7.50	7.52
d'- Max. height of bucket hinge pin	6.149	6.464	6.491
e - Max dumping clearance	5.12	5.43	5.46
f - Min. dumping clearance	2.38	2.07	1.90
g - Max. vertical wall digging depth	3.54	3.97	4.30
h - Min. front swing radius	1.75	2.09	1.90
i - Horizontaldigging stroke at ground level	2.72	3.15	3.46
j - Diging depth for 2.4 m flat bottom	3.74	4.22	4.30
Bucket capacity SAE heaped m^3	0.28	0.22	



DIGGING FORCE

Unit: kN (kgf)

Arm length	1.65 m	2.07m	1.65 + 0.5 m
Bucket digging force		52.9 (5,400)	
Arm crowding force	39.2 (4,000)	34.7 (3,535)	32.8 (3,340)

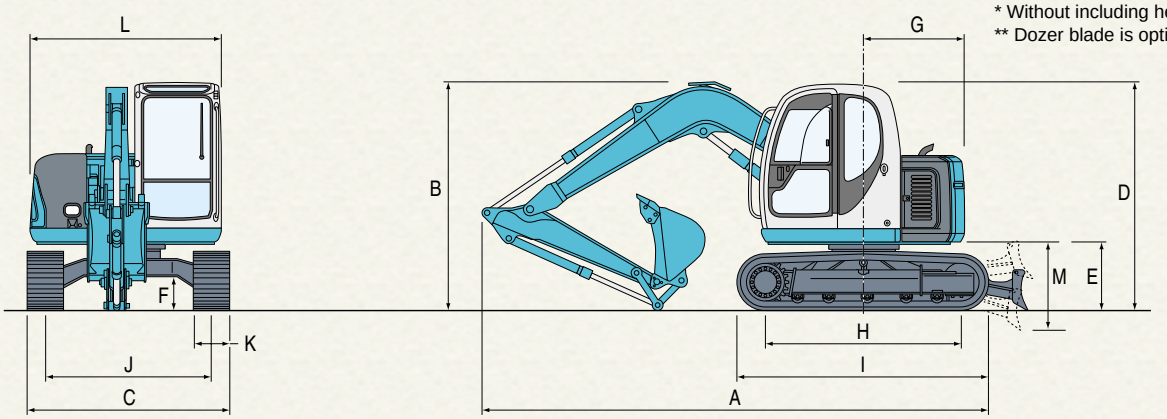
DIMENSIONS

Unit: mm

	Arm length	1.65 m	2.07 m	1.65 + 0.5 m
A	Overall length	5,780	5,790	5,770
B	Overall height (to top of boom)	2,600		2,810
C	Overall width (450 mm shoe)	2,320		
D	Overall height (to top of cab)	2,600		
E	Ground clearance of rear end	750		
F	Ground clearance	380		

G	Tail swing radius	1,160
H	Tumbler distance	2,240
I	Overall length of crawler	2,860
J	Track gauge	1,870
K	Shoe width	450/600
L	Overall width of superstructure	2,170
M	Dozer blade (up/down)**	360/230

* Without including height of shoe lug.
** Dozer blade is optional.

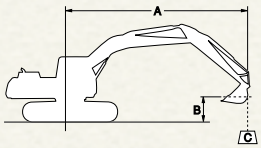


OPERATING WEIGHT AND GROUND PRESSURE

In standard trim, with standard boom, 1.65 m arm, and 0.28 m^3 SAE heaped bucket.

Shape		Triple grouser shoe (even height)		Flat shoe	Rubber shoe
Shoe width	mm	450	600	450	450
Overall width	mm	2,320	2,470	2,320	2,320
Ground pressure	kPa (kgf/cm^2)	31 (0.32)	24 (0.24)	32 (0.32)	31 (0.32)
Operating weight	kg	6,700	6,925	6,855	6,650

LIFTING CAPACITY



Rating over front

Rating over side or 360 degrees

A - Reach from swing centerline to bucket hook
B - Bucket hook height above/below ground
C - Lifting capacities in kilograms
• Max. discharge pressure: 29.4 MPa (300kg/cm²)

SK70SR Standard Arm: 1.65 m 0.28 m³ SAE heaped 200 kg Shoe: 450 mm							
A / B		1.5 m		3.0 m		4.5 m	
4.5 m	kg			*2,070	*2,070		
3.0 m	kg	*4,410	*4,410	*2,590	2,250	1,360	1,100
1.5 m	kg			2,530	1,970	1,280	1,020
Ground level	kg			2,500	1,800	1,210	950
- 1.5 m	kg	*4,160	*4,160	2,280	1,760	1,190	930
- 3.0 m	kg	*2,590	*2,590	*1,760	*1,760		

SK70SR Standard Arm: 1.65 m 0.28 m³ SAE heaped 200 kg Shoe: 600 mm							
A / B		1.5 m		3.0 m		4.5 m	
4.5 m	kg			*2,070	*2,070		
3.0 m	kg	*4,410	*4,410	*2,580	2,330	1,420	1,150
1.5 m	kg			2,600	2,050	1,330	1,070
Ground level	kg			2,420	1,880	1,260	1,000
- 1.5 m	kg	*4,160	*4,160	2,380	1,850	1,240	980
- 3.0 m	kg	*2,590	*2,590	*1,760	*1,760		

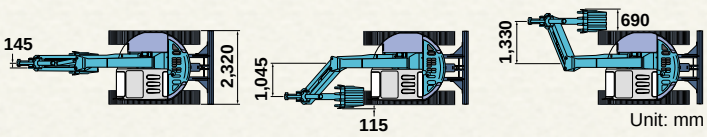
Notes:
1. Do not attempt to lift or hold any load that exceeds these rated values at their specified load radii and heights.
2. Lifting capacities assume a machine standing on a level, firm, and uniform supporting surface.Operator must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, inexperienced personnel, weight of various other buckets, lifting slings, attachments, etc.
3. Ratings at bucket lift hook.
4. The above rated loads are in compliance with SAE Hydraulic Excavator Lift Capacity Rating Standard J 1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Rated loads marked with an asterisk(*) are limited by hydraulic capacity rather than tipping load.
5. When a dozer blade is attached to SK70SR, do not attempt to increase lifting capacity by setting the blade on the ground and using it as a stability.
6. Operator should be fully acquainted with the operators' manual before operating this machine. Rules for safe operation of equipment should be followed at all times.
7. Capacities apply only to the machine as originally manufactured and normally equipped by KOBELCO Construction Machinery, Ltd.

SIDE DIGGING ATTACHMENT

WORKING RANGES

Unit: m

Arm		1.76 m		
Offset		(Center)	Max. (left)	Max. (right)
a	Max. digging reach	6.44	6.06	5.75
b	Max. digging reach at ground level	6.30	5.92	5.60
c	Max. digging depth	4.19	3.82	3.51
d	Max. digging height	7.48	7.14	6.86
e	Max. dumping clearance	5.41	5.07	4.79
f	Min. dumping clearance	2.57	2.24	1.96
g	Max. vertical wall diging depth	3.28	2.93	2.64
h	Min. front swing radius	1.41	1.56	2.05
i	Horizontal digging stroke at ground level	2.84	2.86	2.88
j	Digging depth at 2.4m flat bottom	3.80	3.42	3.11
Bucket capacity m³ SAE heaped		0.28		



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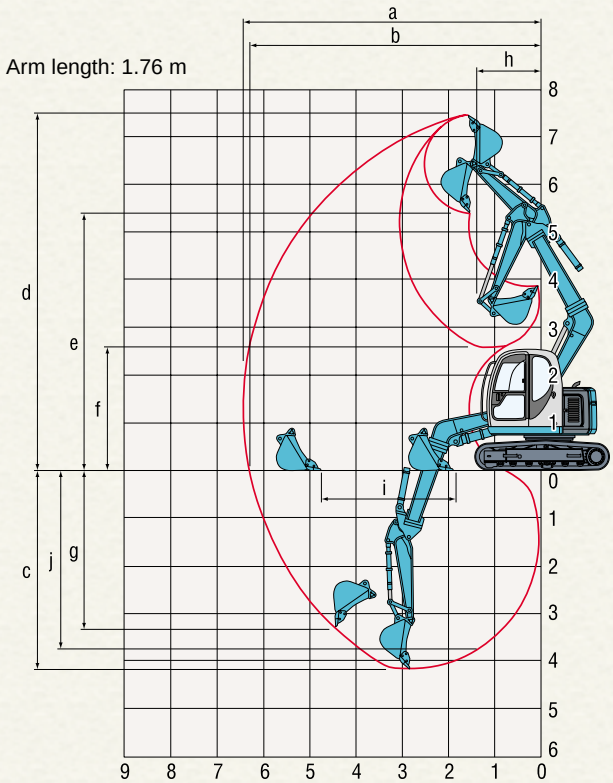

Reliable, Safe, and Easy to Maintain

Aluminum Oil Cooler Resists Corrosion and Is Easy to Clean

The oil cooler's anti-dust mesh cover can be easily disassembled and removed to simplify cleaning. (The photo shows the cooler with the left side removed.)

Reliable Brake and Lock Functions Enhance Safety

- *Safety lever-lock prevents accidental operation during cab entry and exit.*
- *Swing and parking brakes keep the machine immobilized when stopped.*
- *Optional boom and arm lock valves keep the attachment from drifting.*
- *Emergency engine stop overides all other functions to shut the engine down.*

Simple, Rugged Design Ensures That the Machine Retains Its Long-term Value

1. High-quality urethane paint resists wear.
2. Steel-sheet cover is easy to repair.
3. The floor of the upper body is a single steel plate for added strength.
4. Tough, X-frame chassis can handle uneven terrain with ease.
5. Upper rollers feature a thick shaft diameter for added strength.
6. Lower spring cover protects spring of idler.
7. Three-piece crawler frame provides excellent rigidity.
8. Modified shape of motor cover keeps out mud and gravel.

Side bonnet has gas damper cylinder for easy opening.

Hydraulic oil gauge shown against white background for easier reading.

Dozer cylinder cover offers greater cylinder protection. (Dozer blade is optional)

The skylight is treated with a hard coating to improve durability.

Multifunctional Check & Safety Monitor Is Easy to Read

- *The simplified Check & Safety Momnitor has 2 gauges and 6 display categories to provide instant verification of the machine's operating status at a glance.*
- *The 22-item self-diagnostic function pinpoints malfunctions before a serious problem develops and provides emergency back-up.*
- *The service diagnostic function (36 items) supports quick and accurate repair servicing.*

Easy to Maintain

- *The front panels of the oil cooler and radiator are designed with spaces that allow a hand to be inserted.*
- *Wavy-finned radiator resists clogging.*
- *The floor mat is designed for easy washing with water.*

Environmental Features

- New low-emission engine (clear TIER II)
- Advanced noise-control technology
- Electromagnetic Compatibility
- Non-amine coolant
- Biodegradable Hydraulic Oil (optional)
- Newly designed pan for oil change

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