

MINI EXCAVATOR
SK35SR



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KOBELCO CONSTRUCTION MACHINERY CO., LTD.

17-1, Higashigotanda 2-chome, Shinagawa-ku, Tokyo 141-8626 JAPAN
Tel: +81 (0) 3-5789-2146 Fax: +81 (0) 3-5789-2135
www.kobelco-kenki.co.jp/english_index.html

Inquiries To:

KOBELCO is the corporate mark used by Kobe Steel on a variety of products and in the names of a number of Kobe Steel Group companies.



An Evolutionary Leap:

The Ultra-Compact Yet Tough



Mini excavators are the machine of choice for small jobs where space is limited, like garden construction and pipe laying. In addition to their minimized tail swing radius, minis have also developed excellent performance characteristics and maneuverability that have broadened their usefulness for many different types of jobs.

Now KOBELCO has taken the next evolutionary step by packing even more digging power and practical performance features into the SK35SR while maintaining zero tail swing. No matter what the operation—digging, swinging, loading or dozing—this machine delivers unprecedented performance that will be profitable for owners while fully satisfying the most demanding operator.

The SK35SR offers further refinement of the reliable mechanisms that have earned KOBELCO a reputation for excellence around the world. But that's not all. Our engineers have also kept the environment in mind when developing their designs, ensuring that the SK35SR clears all of the latest exhaust-gas regulations. Thanks to KOBELCO, mini excavators have just taken an evolutionary leap forward, with more powerful performance packed into less space than ever before.

1 Ample Performance: Capacity, Power and Speed

Operability, ability to work well in small spaces, excellent side-ditch digging performance

2 Profitable Operation

Zero swing radius means safe operation to the rear, minimizing repair costs and allowing the operator to concentrate efficiently on the job at hand

3 Highly Reliable Construction

Construction that supports high-level performance

4 Easy Maintenance

Quick and easy daily machine care

5 Comfortable Work Environment

Long hours of operation without fatigue

Fast, Full-Powered Digging and Leveling

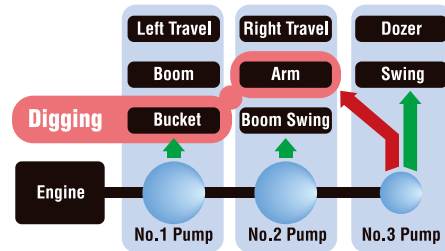
Powerful Digging

SK35SR is built for hard work. Thanks to IFPS (Integrated- Flow Pump System) and a largecapacity engine, the hydraulic flow is more efficient than ever before, with a sensitive responsiveness that reduces cycle times. This combination of tough power and speed greatly increases hourly digging capacity.



Integrated-Flow Pump System (Three Pumps)

The instant the machine begins to dig, extra output from the third pump (which otherwise powers the swing and dozer circuit) is directed to the arm circuit for added power. This ensures fast and smooth arm operation even under heavy loads.

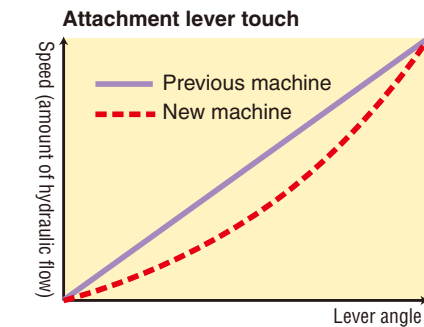


Large-Capacity Engine

The large-capacity engine meets Tier III requirements and packs plenty power for outstanding hydraulic performance.

Smooth, Precise Lever Control

The control valves are carefully adjusted to precisely regulate hydraulic flow when the attachment and other systems begin moving, providing the operator with smooth, pinpoint control.



One Touch Deceleration

One touch deceleration allows easy switching to an idling state, reducing the fuel consumption while the machine is at rest.



More Travel Power

Larger-capacity travel motors provide more travel torque resulting in powerful travel.

Automatic Two-Speed Travel

An automatic shift function ensures smoother, more efficient travel on the worksite. The large capacity travel torque enables the machine to perform spin turn in low mode even when the dozer is pushing a heavy load.



The travel lever is fitted with a button for easy switching to Hi-Mode travel.

Optional Steel Shoes/Rubber-padded Shoes

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



Steel shoes



Rubber-padded shoes

Excellent Stability

The front crawler idlers have been adjusted to increase the area of contact between the crawler shoes and the ground. This reduces vibration when traveling.

Reduced vibration when traveling

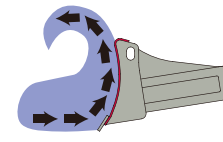


Powerful and Efficient Dozer Performance

Dozer operations are an indispensable part of pipe laying, ditch digging, and other jobs that require leveling, compacting and refilling. To meet this need, the SK35SR combine a powerful travel system with a highly efficient dozer blade that moves earth with less waste. The result: more work completed in less time.

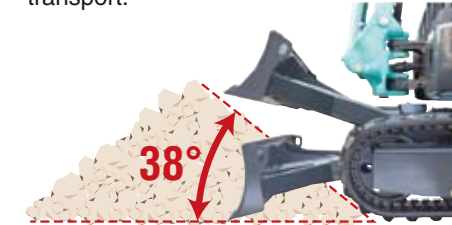
New Dozer-Blade Shape

KOBELCO's unique blade design solves this problem by forming the earth into an arc that always falls forward. Because this prevents earth from falling behind the blade, only "one pass" is needed. (Patent pending)



Maximum Approach Angle of 38°

The dozer blade can be raised much higher than before. With a maximum approach angle 38°, it's easy to ride the machine up over mounds of earth, or to load the machine onto a truck for transport.



Optimized Bucket/Blade Positioning

The distance between the bucket and dozer blade has been minimized to make surface sweeping more convenient.



Hydraulic Pilot-Controlled Dozer Operation Lever



The dozer lever features hydraulic pilot control for precise handling.

Zero tail Swing and Excellent Side-Ditch Digging

Excellent Safety and Operating Efficiency

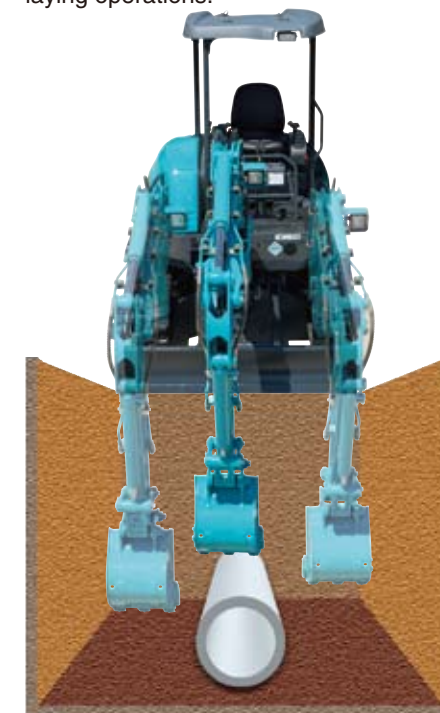
The zero tail swing means that the operator doesn't have to worry about the rear of the machine when swinging. He can concentrate instead on the job in front of him, which increases performance efficiency.

Tail overhang: 0 mm



Boom Offset Function

The boom offset function makes it possible to do parallel digging without moving the undercarriage, resulting in precise and safe ditch digging and pipe laying operations.



Small Operating Footprint

The combination of the side-ditch digging function and zero tail radius makes it easy to dig next to walls, with a compact operating footprint that makes digging, swinging and dumping possible in very limited spaces.

Exceptional Endurance

Highly Reliable Construction

The boom, arm and swing bracket all have large cross-section areas that provide added strength to the attachment. This mechanical strength is complemented by a high-strength power line and enhanced cooling function for even more solid power.

Stronger Boom and Arm

1. Forged boom top
2. Self-locking pins firmly lock the boom and arm to prevent the boom top from opening laterally.
3. Stronger box-section boom
4. Reinforced arm handles diverse applications.



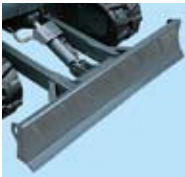
Bucket

1. Cast idler links provide greater strength.
2. The bucket's hydraulic piping passes through the arm bracket for added protection.



Dozer

1. Increased torsional strength in dozer arms
2. Dozer's hydraulic piping is easily replaced
3. Dozer cylinder cover



Swing Bracket

1. Large, thick cast-iron swing bracket
2. Plate-type pin prevents unwanted rotation



Reinforced Lower Structure



Diagram: Pin with plate

The plate engages with the idler boss to prevent the pin rotating.

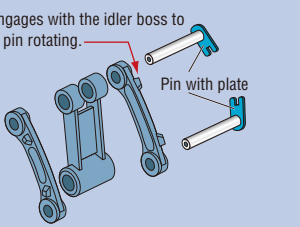
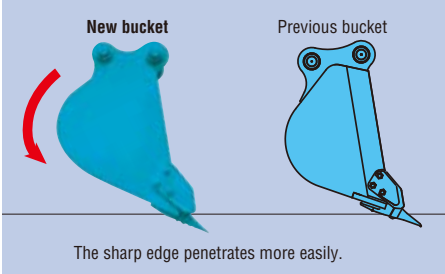


Diagram: Newly shaped bucket

New bucket Previous bucket



The sharp edge penetrates more easily.

Outstanding Cooling Performance

The high-performance, high-capacity radiator and oil cooler, coupled with larger engine-oil capacity, deliver a heat balance that's comparable to a full-size machine.



Highly Reliable Power Plant

The size of many of the engine components has been increased for improved reliability, including: a large battery, large-capacity radiator, large-capacity oil cooler, and increased starter-motor and alternator capacities.

Large-Size Components

1. Breather prevents malfunctions in hydraulic components.
2. Large battery and large-capacity radiator
3. Large-capacity oil cooler
4. Increased starter-motor capacity
5. Increased alternator capacity

Easy Maintenance

Easy Daily Maintenance

Start-up checks are essential for safe and reliable machine operation. With SK35SR, all start-up checks can be performed at ground level, with an easy-to-understand layout and cover design that simplify access and reduce check times.

Routine Maintenance

Ground-level start-up checks



- 1 Hour meter can be checked from the ground.
- 2 Fuel tank can be filled from the ground.
- 3 Right cover has small window that makes N&B selection easily.
- 4 A compartment a cover under the seat provides easy access to electrical components.
- 5 Wider opening cover provides easy access to valves.
- 6 Air filter can be easily changed.
- 7 Radiator is easy to clean.
- 8 Two-piece floor mats for easy washing.
- 9 No tools needed for fuel-tank drain cock.
- 10 Oil pan for engine oil filter.

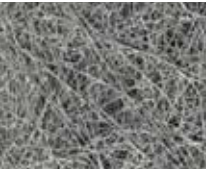
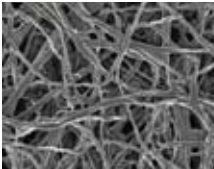
Easy Cleaning



Exclusive Super-Fine Filter

This exclusive super-fine filter is environmentally friendly, lasts 1,000 hours, and is easy to replace.

(X 250) (X 250)

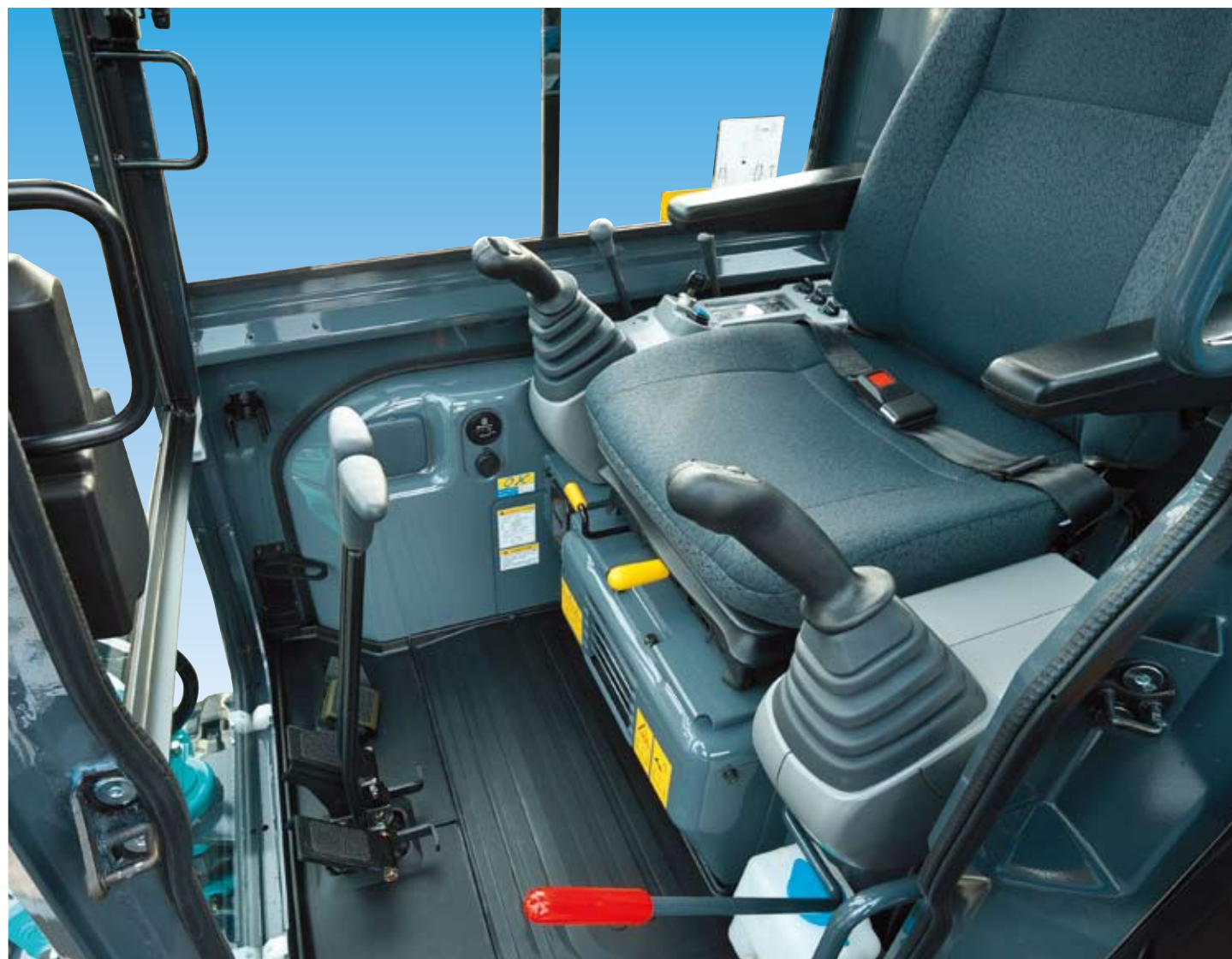


Conventional filter Super fine filter

Comfortable Work Environment

Spacious Work Environment

Broader floor space and a greater sliding range for the seat give operators plenty of foot room. Wide operational space is provided with more room between the left and right control consoles.



Easy Access

A wide-opening door and a left-hand control box with safety lever that rises higher than before, make it much easier for operators to enter and exit the cab.

Wide Cab Entryway

1. Wider door opening
2. Front-window link does not obstruct cab entryway
3. Large, sturdy door handle



Door handle

The Most Foot Room in Its Class

The seat has ample space for sliding forward and back.

Visibility

Wider front window ensures an open, panoramic view.



Work Lights



Work lights have been added on both sides to provide a clear view during nighttime operations.

Control Lever (Optional)

Precise proportional controls are integrated into the joystick for ease of operation.



Operator Safety

Newly Developed ROPS Cab

Deformed pipe is used in the cab frame to increase rigidity, resulting in a 50% increase in durability and service life.



Exclusive, Newly Designed TOPS/FOPS Canopy

The newly designed three-support TOPS/FOPS canopy ensures easy access, and provides an open view of digging operations when swinging.



Note: Specifications for the cab and canopy differ depending on the region.

Amenities

Levers, instruments, and accoutrements have been laid out with a priority placed on ease of use, straightforward access, ergonomic positioning, and clear visibility.



Monitor display panel set at an easy-to-read angle
Storage compartment for personal items



Easy-access, easy-turn ignition with rubber boots for protection against moisture and freezing



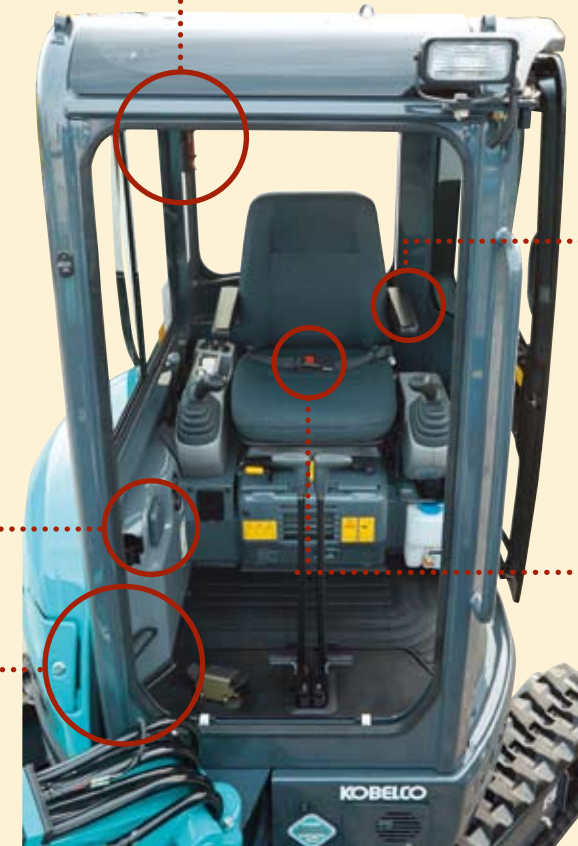
Cup holder



Easy-access grease-gun holder



Front window features gas damper cylinders for smooth and easy opening.



Room light, coat hook and safety hammer



Standard arm rest

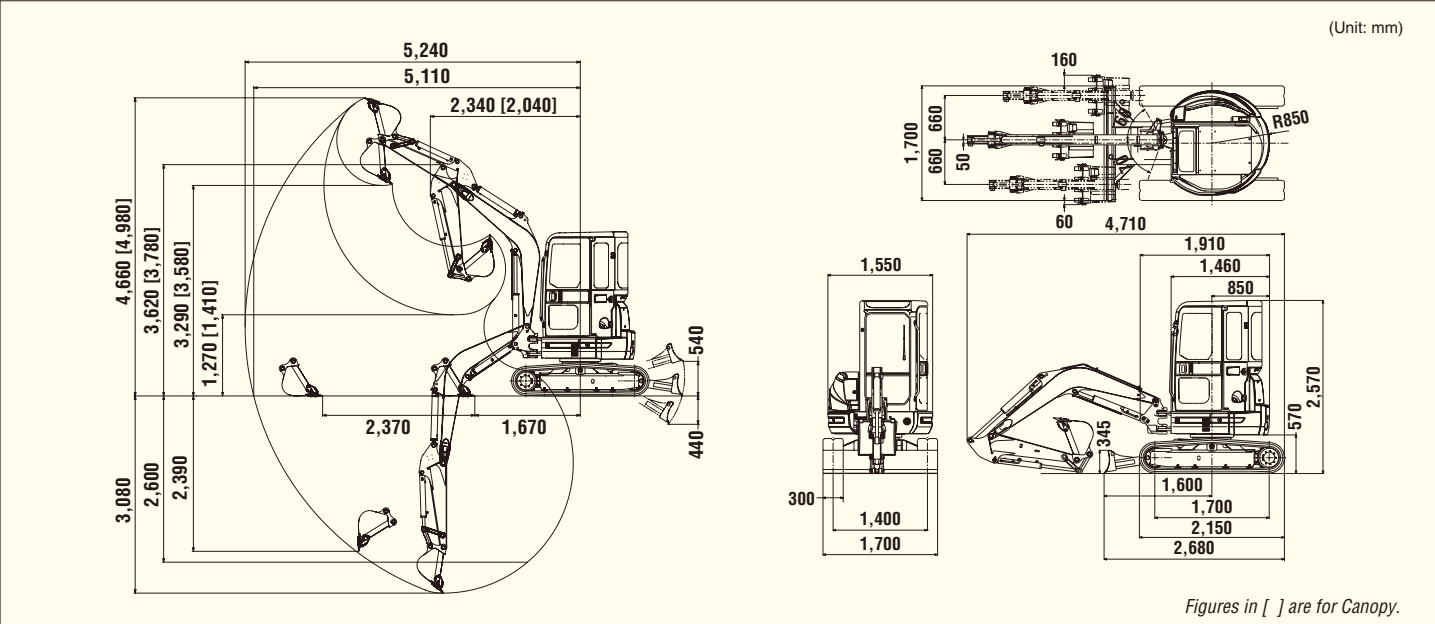


Seat belt

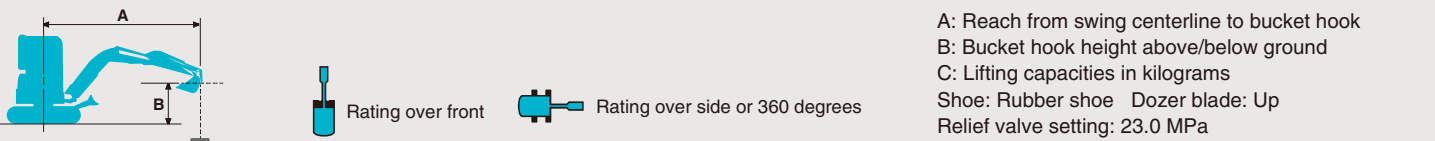
SPECIFICATIONS

MODEL			SK35SR	
Type			SK35SR-5	
Machine Mass	Cab	kg	3,720	
	Canopy	kg	3,580	
Bucket Capacity		m³	0.11	
Bucket Width (with side cutter)		mm	600	
Arm Length		m	1.32	
Bucket Digging Force		kN	27.4	
Arm Crowding Force		kN	18.7	
ENGINE				
Model		YANMAR 3TNV88		
Type		Water cooled, 4-cycle, 3-cylinder,direct injection, diesel engine		
Power Output	(ISO 9249)	kW/min ⁻¹	21.2/2,400	
	(ISO 14396)	kW/min ⁻¹	22.5/2,400	
Max. Torque	(ISO 9249)	N-m/min ⁻¹	98.0/1,440	
	(ISO 14396)	N-m/min ⁻¹	99.8/1,440	
Displacement		L	1.642	
Fuel Tank		L	38	
HYDRAULIC SYSTEM				
Pump		Two variable displacement pumps + One gear pump		
Max. Discharge Flow		L/min	2 x 38.4	
Relief Valve Setting		MPa	23.0	
Hydraulic Oil Tank (system)		L	38 (48)	
TRAVEL SYSTEM				
Travel Motors		2 x axial-piston, two-step motors		
Parking Brake		Oil disc brake per motor		
Travel Speed (high/low)		km/h	4.5/2.5	
Gradeability		% (degree)	58 (30)	
Drawbar Pulling Force		kN	38.1	
CRAWLER				
Shoe		mm	Rubber	
Shoe Width		mm	300	
Ground Pressure	Cab	kPa	33.0	
	Canopy	kPa	32.0	
DOZER BLADE				
Width x Height		mm	1,700 x 345	
Working Ranges (height/depth)		mm	540/440	
SWING SYSTEM				
Swing Motor		Axial piston motor		
Parking Brake		Oil disc brake, hydraulic operated automatically		
Swing Speed		min ⁻¹	8.9	
Tail Swing Radius		mm	850	
Min. Front Swing Radius	Over the front	Cab	mm	2,560
		Canopy	mm	2,040
	At full boom swing	Cab	mm	2,170
		Canopy	mm	1,690
SIDE DIGGING MECHANISM				
Type		Boom swing		
Offset Angle	to the left	degree	70	
	to the right	degree	60	

WORKING RANGES & DIMENSIONS



LIFTING CAPACITIES



SK35SR		Arm: 1.32 m, Bucket: 0.11 m³ ISO heaped Rubber shoe: 300 mm							
B	A	1.0 m		2.0 m		3.0 m		4.0 m	
3.0 m	kg							*550	490
2.0 m	kg							550	480
1.0 m	kg							520	450
G. L.	kg			*1,360	1,300	820	710	520	450
-1.0 m	kg	*1,820	*1,820	1,540	1,270	780	670	500	430
-2.0 m	kg	*2,590	*2,590	1,550	1,280	780	660		

- Notes:**
- 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.
 - 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.
 - Bucket lift hook defined as lift point.
 - The above lifting capacities are in compliance with ISO 10567. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Lifting capacities marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.
 - 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.
 - Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.

OPTIONAL EQUIPMENT

• N&B (HCP*) piping	• Steel shoe	• Rear view mirror
• N&B (foot) piping + Rotating N&B (HCP*)	• Bolt-on Pad shoes (for steel shoes)	• Rear under mirror
• N&B (HCP*) piping + Rotating N&B (HCP*)	• Add-on counterweight	• Arm & bucket cylinder cover
• Long arm (1.59 m)	• Cooler & heater	

*Hand Control Proportional