

KOBELCO

SK135SR/SK140SR LC-7

Performance  Design

SK135SR SK140SR LC

- Bucket capacity:
0.38 – 0.50 m³
- Engine power:
78.6 kW/2,200 min⁻¹
- Operating weight:
14,500 – 16,000 kg



We Save You Fuel
Achieving a Low-Carbon Society

Specifications

Engine

Model	ISUZU 4JJ1XDRAC
Type	Four-cycle, liquid-cooled, direct injection diesel, turbo charged, Tier IV Final certified
No. of cylinders	4
Bore and stroke	95.4 mm x 104.9 mm
Displacement	2.999 L
Rated power output	78.6 kW/2,200 min ⁻¹ (ISO 9249: with fan)
	86.0 kW/2,200 min ⁻¹ (ISO 14396: without fan)
Max. torque	354 N·m/1,800 min ⁻¹ (ISO 9249: with fan)
	375 N·m/1,800 min ⁻¹ (ISO 14396: without fan)

Hydraulic system

Pump	
Type	Two variable displacement piston pumps + one gear pump
Max. discharge flow	2 x 142 L/min
	1 x 22 L/min
	Extra gear pump 1 x 60 L/min
Relief valve setting	
Boom, arm and bucket	34.3 Mpa
Travel circuit	34.3 Mpa
Swing circuit	28.0 Mpa
Control circuit	5.0 Mpa
Pilot control pump	Gear type
Main control valves	12-spool
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	11.0 min ⁻¹
Swing torque	40.4 kN·m

Attachments

Backhoe bucket and combination

Use	Backhoe bucket				
	Normal digging				
Bucket capacity	ISO heaped	m ³	0.38	0.45	0.50
	struck	m ³	0.28	0.35	0.38
Opening width	With side cutter	mm	800	915	1,000
	Without side cutter	mm	740	855	940
No. of teeth			4	4	5
Bucket weight		kg	340	360	390
Combination	2.38m standard arm		○	○	◎
	2.84m long arm		◎	△	×

◎ Standard ○ Recommend △ Loading only × Not recommended

Travel system

Travel motors	Variable displacement piston, two-speed motors
Travel brakes	Hydraulic brake
Parking brakes	Wet multiple plate
Travel shoes	44 each side (SK135SR)
	46 each side (SK140SRLC)
Travel speed	3.4 / 5.6 km/h
Drawbar pulling force	141 kN (ISO 7464)
Gradeability	70% (35°)

Cab & control

Cab

All-weather, sound-suppressed steel cab mounted on the silicon-sealed viscous mounts and equipped with a heavy, 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

Boom, arm & bucket

Boom cylinders	100 mm x 1,092 mm
Arm cylinder	115 mm x 1,116 mm
Bucket cylinder	100 mm x 903 mm

Dozer blade (optional)

Dozer cylinder	125 mm x 220 mm
Dimension	2,490 mm (for 500 mm shoe) (width) x 570 mm (height)*
Working range	500 mm (up) x 590 mm (down)

*Dozer width is changed according to the shoe width difference.

Refilling capacities & lubrications

Fuel tank	186 L
Cooling system	17 L
Engine oil	17 L
Travel reduction gear	2 x 2.1 L
Swing reduction gear	1.65 L
Hydraulic oil tank	89.9 L tank oil level
	176 L hydraulic system
Urea tank	20.7L

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Working ranges

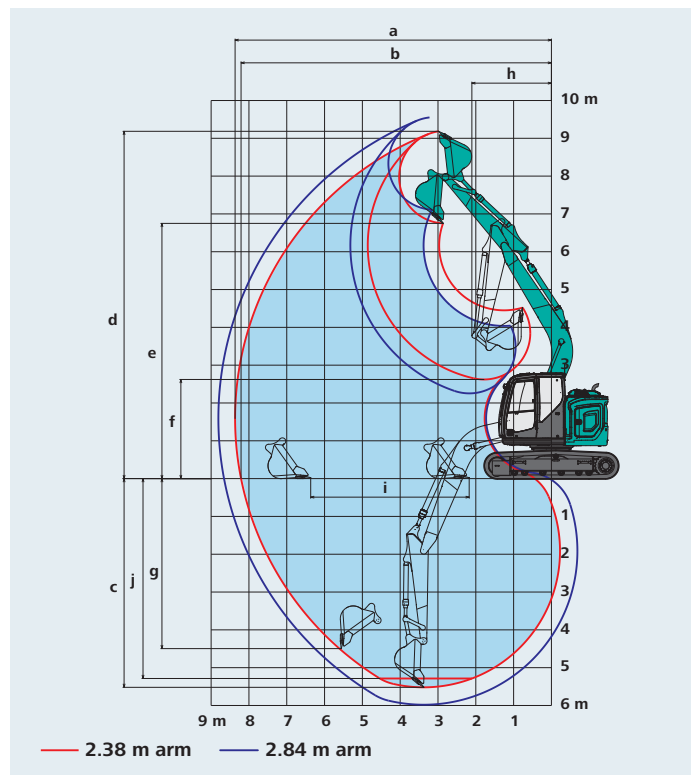
Unit: m

Range	Boom 4.68 m	
	Arm 2.38 m	2.84 m
a- Max. digging reach	8.37	8.81
b- Max. digging reach at ground level	8.21	8.66
c- Max. digging depth	5.52	5.98
d- Max. digging height	9.18	9.55
e- Max. dumping clearance	6.75	7.11
f- Min. dumping clearance	2.62	2.25
g- Max. vertical wall digging depth	4.50	4.95
h- Min. swing radius	2.13	2.52
i- Horizontal digging stroke at ground level	4.19	4.67
j- Digging depth for 2.4 m (8') flat bottom	5.29	5.78
Bucket capacity ISO heaped m ³	0.50	0.38

Digging force (ISO 6015)

Unit: kN

Arm length	2.38 m	2.84 m
Bucket digging force	105.4	
Arm crowding force	64.0	58.0



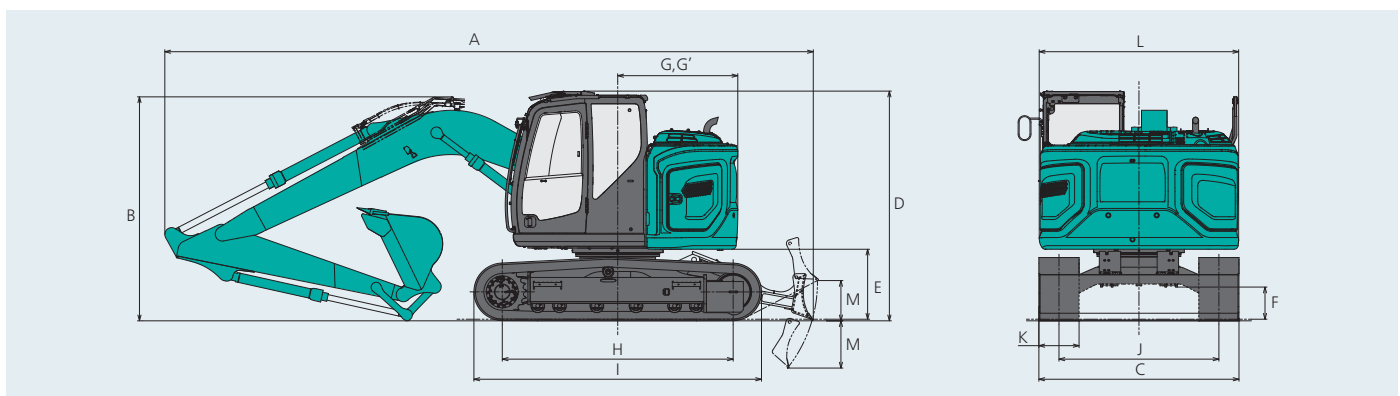
Dimensions

Unit: mm

Arm length	2.38 m	2.84 m
A Overall length	8,070	8,080
B Overall height (to top of boom)	2,790	3,140
C Overall width	2,490**	
D Overall height (to top of cab)	2,860	
E Ground clearance of rear end*	870	
F Ground clearance*	400	
G Tail swing radius	1,490	

G'	Distance from centre of swing to rear end	1,490	
H	Tumbler distance	SK135SR	2,870
		SK140SR _{LC}	3,040
I	Overall length of crawler	SK135SR	3,580
		SK140SR _{LC}	3,750
J	Track gauge	1,990	
K	Shoe	500	
L	Overall width of upperstructure	2,480	
M	Dozer blade (up / down)***	500 / 590	

*Without including height of shoe lug **500 mm shoe ***Dozer blade is optional equipment

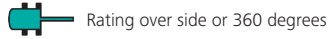
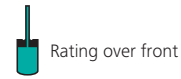
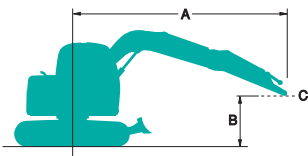


Operating weight & ground pressure

In standard trim, with standard boom, 2.38 m arm, and 0.5 m³ ISO heaped bucket (SK140SR_{LC}-7 2.84m arm and extra 600kg weight)

Shaped		Triple grouser shoes (even height)			
Shoe width	mm	500	600	700	
Overall width of crawler	mm	2,490	2,590	2,690	
Ground pressure	kPa	SK135SR	45.4	38.6	33.6
		SK135SR with blade	48.0	40.8	35.4
		SK140SR _{LC} with blade	47.8	40.7	35.3
Operating weight	kg	SK135SR	14,500	14,700	14,900
		SK135SR with blade	15,300	15,600	15,800
		SK140SR _{LC} with blade	16,000	16,400	16,600

Lift capacities



A - Reach from swing centerline to arm top
 B - Arm top height above/below ground
 C - Lift point
 Bucket: Without bucket
 Relief valve setting: 34.3 MPa {350kgf/cm²}













SK135SR		Arm: 2.38 m Bucket: Without Counterweight: 3,150 kg Shoe: 500 mm Dozer: Less										
A \ B		1.5 m		3.0 m		4.5 m		6.0 m		At max. reach		
												Radius
7.5 m	kg									*2,270	*2,270	3.80 m
6.0 m	kg					*3,390	*3,390			*1,800	*1,800	5.55 m
4.5 m	kg			*4,280	*4,280	*3,670	3,460	3,140	2,140	*1,670	*1,670	6.50 m
3.0 m	kg			*6,540	6,000	*4,420	3,210	3,040	2,060	*1,670	1,580	6.99 m
1.5 m	kg			*5,240	5,190	4,510	2,930	2,920	1,940	*1,760	1,480	7.14 m
G.L.	kg			*6,020	4,980	4,310	2,760	2,820	1,850	*1,980	1,510	6.94 m
-1.5 m	kg	*5,300	*5,300	*8,050	4,990	4,250	2,710	2,800	1,830	*2,430	1,690	6.39 m
-3.0 m	kg	*9,070	*9,070	*6,440	5,130	4,330	2,770			3,360	2,200	5.36 m













SK135SR		Arm: 2.38 m Bucket: Without Counterweight: 3,150 kg Shoe: 500 mm Dozer: Blade up										
A \ B		1.5 m		3.0 m		4.5 m		6.0 m		At max. reach		
												Radius
7.5 m	kg									*2,270	*2,270	3.80 m
6.0 m	kg					*3,390	*3,390			*1,800	*1,800	5.55 m
4.5 m	kg			*4,280	*4,280	*3,670	3,640	3,220	2,270	*1,670	*1,670	6.50 m
3.0 m	kg			*6,540	6,320	*4,420	3,390	3,120	2,180	*1,670	*1,670	6.99 m
1.5 m	kg			*5,240	*5,240	4,630	3,110	3,000	2,070	*1,760	1,590	7.14 m
G.L.	kg			*6,020	5,300	4,430	2,940	2,900	1,980	*1,980	1,610	6.94 m
-1.5 m	kg	*5,300	*5,300	*8,050	5,310	4,370	2,890	2,880	1,950	*2,430	1,800	6.39 m
-3.0 m	kg	*9,070	*9,070	*6,440	5,450	4,450	2,950			*3,380	2,350	5.36 m

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SK135SR		Arm: 2.84 m Bucket: Without Counterweight: 3,150 kg Shoe: 500 mm Dozer: Blade up												
B	A	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. reach		Radius
														
7.5 m	kg					*2,320	*2,320					*2,050	*2,050	4.59 m
6.0 m	kg					*2,960	*2,960	*2,080	*2,080			*1,710	*1,710	6.11 m
4.5 m	kg					*3,270	*3,270	*3,090	2,300			*1,590	*1,590	6.98 m
3.0 m	kg			*5,660	*5,660	*4,060	3,450	3,150	2,200			*1,590	1,520	7.44 m
1.5 m	kg			*7,810	5,680	4,680	3,150	3,000	2,070	*2,080	1,460	*1,660	1,430	7.58 m
G.L.	kg			*6,210	5,290	4,430	2,930	2,890	1,960			*1,850	1,450	7.40 m
-1.5 m	kg	*4,540	*4,540	*8,410	5,230	4,330	2,850	2,830	1,910			*2,210	1,590	6.88 m
-3.0 m	kg	*7,630	*7,630	*7,100	5,330	4,370	2,870					2,920	1,980	5.94 m
-4.5 m	kg			*4,370	*4,370							*2,770	*2,770	4.28 m

SK140SR _{LC}		Arm: 2.84 m Bucket: Without Counterweight: 3,150 kg + 580 kg Shoe: 500 mm Dozer: Blade up												
B	A	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. reach		Radius
														
7.5 m	kg					*2,320	*2,320					*2,050	*2,050	4.59 m
6.0 m	kg					*2,960	*2,960	*2,080	*2,080			*1,710	*1,710	6.11 m
4.5 m	kg					*3,270	*3,270	*3,090	2,560			*1,590	*1,590	6.98 m
3.0 m	kg			*5,660	*5,660	*4,060	3,820	*3,390	2,460			*1,590	*1,590	7.44 m
1.5 m	kg			*7,810	6,340	*4,960	3,520	3,630	2,330	*2,080	1,660	*1,660	1,630	7.58 m
G.L.	kg			*6,210	5,950	5,410	3,300	3,510	2,220			*1,850	1,650	7.40 m
-1.5 m	kg	*4,540	*4,540	*8,410	5,890	5,310	3,220	3,450	2,170			*2,210	1,810	6.88 m
-3.0 m	kg	*7,630	*7,630	*7,100	5,990	*4,830	3,250					*3,030	2,250	5.94 m
-4.5 m	kg			*4,370	*4,370							*2,770	*2,770	4.28 m

- 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.
- Arm top is defined as lift point.
- 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.
- 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.