

KOBELCO®

Your competitive edge.

135SR_{LC}

WT 30,870 lb.

HP 94 SAE NET

BKT CAP .44~.88 cu yd



SHORT RADIUS Hydraulic Excavator

PRODUCTIVITY



CAB & CONTROLS

Kobelco knows that operator comfort has a direct influence on performance. That's why they have created an ideal balance between comfort and logistics in the 135SRLC's ergonomic cab design. Controls are sensibly located for ease of use. There is a fully adjustable suspension seat and control console and air conditioning is standard. Effective lighting, both inside the cab and on the machine's exterior, provides excellent visibility in low light situations.



A Redesigned Cab

- Improved visibility all around the machine
- Easy cab access while maintaining the same width and floor space as other models despite being a short swing radius machine
- Front window slides open and out of the way. The bottom piece of glass is removable and easily stored
- Low noise and vibration levels due to encapsulated liquid-viscous floor plate mounts

Suspension Seat by KAB

The operator's seat is 7- way adjustable with a dual slide mechanism that allows the operator to adjust the seat in relation to the travel levers, the console-mounted joysticks and controls separately. Any operator can be made comfortable.

Climate Control

The operator sets the desired temperature and the air conditioning unit automatically maintains it. Thoughtfully placed vents are located at foot level, chest level and to the rear. An additional vent can be used as a defroster at the front right.



12 Volt Converter

Most optional plug-in equipment is capable of running off this standard feature in all Kobelco excavators.

Gauge Cluster

The 135SRLC Gauge Cluster contains the following lamps, gauges and indicators:

- Work mode indicator lamp: tells whether machine is in "H", "S" or "FC" mode
- Engine coolant temperature gauge
- Fuel level gauge
- Monitor/warning lamps: engine oil pressure, engine coolant temperature, battery charge, engine preheat, two speed travel, fuel level, air cleaner restriction, CPU, swing parking brake release

E.A.C.S.—Electronic Active Control System

E.A.C.S. permits precise control of the engine and hydraulic system automatically. A state-of-the-art computer controls the engine and pumps so that they work together and respond automatically to the operator's commands. High and low pressure sensors work in conjunction with the engine speed sensor to determine what the operator is demanding from the machine and what the current machine status is. Based on feedback from these sensors, the computer effectively tailors the output of the main pumps to maximize productivity. You get precise, fine control, automatic engine deceleration with progressive RPM recovery tailored to operation input, and high horsepower on demand.

EXCEPTIONAL ENGINE

Rock-Solid Reliable, Isuzu Engine

The heart of any machine is its power source, and the 135SR_{LC} is powered by the proven reliability of the Isuzu 4-cycle diesel engine, with an impressive 94 net horsepower and 264 cubic inch displacement. The Isuzu power plant features direct fuel injection that translates into excellent power and fuel economy. Specifications include:

- Isuzu engine, model A-4BG1T
- Direct injection, water cooled 4-cylinder, 4-cycle diesel
- 264 cu. In. (4.33 liters) displacement
- 94 HP (70.6 kW) @ 2,200 rpm
- Good fuel economy
- Durable, long life
- Meets worldwide emission standards



MAINTENANCE

Routine maintenance is a given with any hard-working machine, but Kobelco has designed the 135SR_{LC} to keep maintenance headaches and downtime to a minimum. The sophisticated integral electronic diagnostics keep the operator alert to any potential problems, and traditional high maintenance areas have been designed for easy access.

Easy Access

The engine hood swings open easily and allows complete access for routine service checks. Engine oil level can be readily checked and all fuel and oil filters are easy to replace. The air cleaner is easy to inspect and replace. A lightweight but durable guard covers the fuel and hydraulic tanks as well as the main control valve and batteries. This lockable guard is very light and opens easily with your ignition/cab key.

Easy Maintenance Radiator

The 135SR_{LC}'s radiator utilizes a waved fin design that deters clogging. A dust screen covers the front face of the oil cooler and greatly reduces the amount of particles allowed to pass through. This screen is easy to remove and clean. The space between the oil cooler and the radiator has been widened and makes for easy in-place clean out.

Electrical Diagnostics

The 135SR_{LC} is equipped with an electrical self-diagnostic function built into the controller. The cluster gauge has warning lights and buzzers to inform the operator about critical machine problems. If a failure occurs, an LCD display on the face of the controller will show a failure code related to whatever the failure is. This code can easily be cross-referenced and the failure determined. The 135SR_{LC}'s diagnostic function can check up to thirty-six different items related to machine functions, an effortless way to quickly determine the condition of the machine and eliminate a lot of guesswork in maintenance situations.



PERFORMANCE

SWING SYSTEM

The effectiveness of a machine's swing system defines its capability, and the 135SRLC's 5.1" tail swing design redefines the effectiveness of the whole 14-ton class. By borrowing technology from their highly acclaimed cranes, Kobelco excavators incorporate a swing system that provides smoother starts and stops, and more precise bucket placement with a Swing Shockless Valve. This valve greatly reduces the rebound caused by the gear train backlash of the swing system by absorbing and dampening the effect of each rebound.



Minimal Tail Swing

In the case of the 135SRLC, the tail swing radius is so small that the counterweight of the machine only extends past the width of the tracks 5.1" when the upper frame is rotated through a complete swing arc. This is particularly advantageous when working in tight places. Whether operating in the street close to traffic, near the wall of a building or any other typical work site obstruction, the rear of the machine is safer from damage from any of these objects.

Improved Operator Confidence

Operators can concentrate more on moving material and worry less about safety considerations or swinging the tail into something. This allows for a more relaxed and comfortable operator, improving his/her efficiency and productivity. With such a small working width, this machine operates where few others in this weight class can—in extremely limited and confined spaces.

Minimal Front Swing Radius

The 135SRDZ also has a very short front swing radius. The combination of a short front swing radius and a 5.1" tail swing allows this machine to complete a swing-dumping operation within a 13' 4" width. This working width is more commonly seen on a 6-ton mini excavator.

Variable Swing Priority

Variable swing priority provides excellent swing control during simultaneous operations with the arm and bucket.

TRAVEL SYSTEM

The travel system aboard the 135SRLC is among the fastest and most sophisticated in the industry. A fast travel speed of 3.7 mph, combined with Kobelco's rugged construction standards make for one of the most productive excavators around.

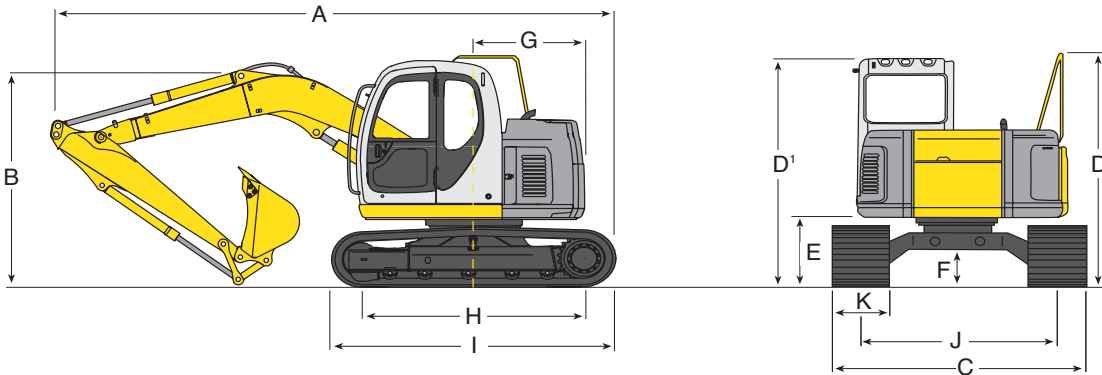
Straight Propel System

The flow from two hydraulic pumps is logically directed to allow fast speeds when traveling and unerringly straight travel while operating attachments. This system ensures straight line travel when using other functions, making jobs like laying pipe much easier and more productive.

Two Speed Travel

There are two travel speed mode settings, "Turtle" and "Rabbit". The "Turtle" mode permits low speed and high torque, perfect for climbing steep inclines or muddy conditions. The "Rabbit" mode provides high speed and low torque to get you across the jobsite quickly.

WEIGHTS & DIMENSIONS



DIMENSIONS

Unit: ft-in (m)

ARM LENGTH		9' 8"	(2.95)
A	Overall length	24' 6"	(7.47)
B	Overall height (to top of boom)*	9' 0"	(2.74)
C	Overall width	8' 6"	(2.59)
D	Overall height (to top of hand rail)*	9' 3"	(2.81)
D'	Overall height (to top of cab)*	9' 0"	(2.74)
E	Ground clearance of rear end*	35.8"	(0.91)
F	Ground clearance of under carriage*	18"	(0.46)
G	Tail swing radius	4' 8"	(1.43)
H	Tumbler distance	9' 11"	(3.04)
I	Overall length of crawler	12' 3"	(3.74)
J	Track gauge	6' 6"	(1.99)
K	Shoe width	23.6"	(600 mm)

* Excludes height of grouser bar.

HYDRAULIC SYSTEM

Pump	2 variable displacement
Max discharge flow	2 x 31.4 US gal/min (2 x 118 lit/min)
Max discharge pressures:	
Boom, arm & bucket	4,980 psi (34.3 MPa)
Propel circuit	4,980 psi (34.3 MPa)
Control circuit	710 psi (4.9 MPa)
Swing pressure	4,050 psi (27.9 MPa)
Control valves	6 spool

WEIGHTS

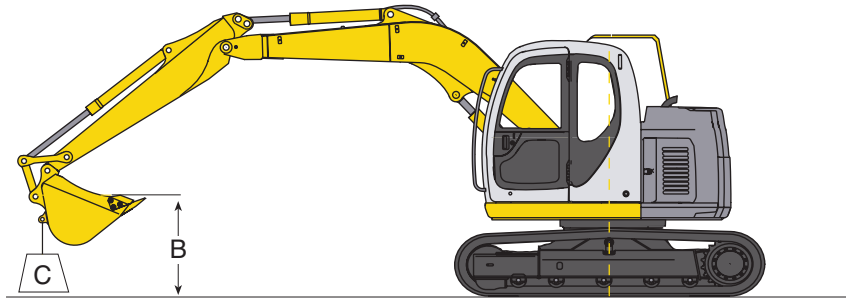
Operating weight	30,870 lbs (14,000 kg)
Ground pressure (600mm shoes)	5.11 psi (35 kPa)

BUCKET SELECTION CHART

Bucket Duty	Capacity (SAE) Cubic Yard (m ³)	Width Inches (m)	Weight lb (kg)	Arm 8-0 (2.45m)
General Purpose	0.30 (.229)	18" (.457)	650 (295)	H
	0.44 (.336)	24" (.609)	720 (327)	H
	0.58 (.443)	30" (.762)	835 (379)	M
	0.73 (.558)	36" (.914)	905 (411)	L
	0.88 (.672)	42" (1.066)	1,015 (460)	L
Heavy Duty	0.30 (.229)	18" (.457)	705 (320)	H
	0.44 (.336)	24" (.609)	780 (354)	H
	0.58 (.443)	30" (.762)	900 (408)	M
	0.73 (.558)	36" (.914)	975 (442)	L
	0.88 (.672)	42" (1.066)	1,090 (494)	X

- H Used with material weight up to 3,000 lbs per cubic yard.
- M Used with material weight up to 2,500 lbs per cubic yard.
- L Used with material weight up to 2,000 lbs per cubic yard.
- X Not recommended.

SPECS



- A** Reach swing centerline to bucket hook
- B** Bucket hook height above/below ground
- C** Lifting capacities in pounds and kilograms
 - Max discharge pressure:
4,980 psi (34.3 MPa)
 - Track shoe: 23.6" (600 mm) Triple grouser
 - Boom: 15' 1" (4.6 m)

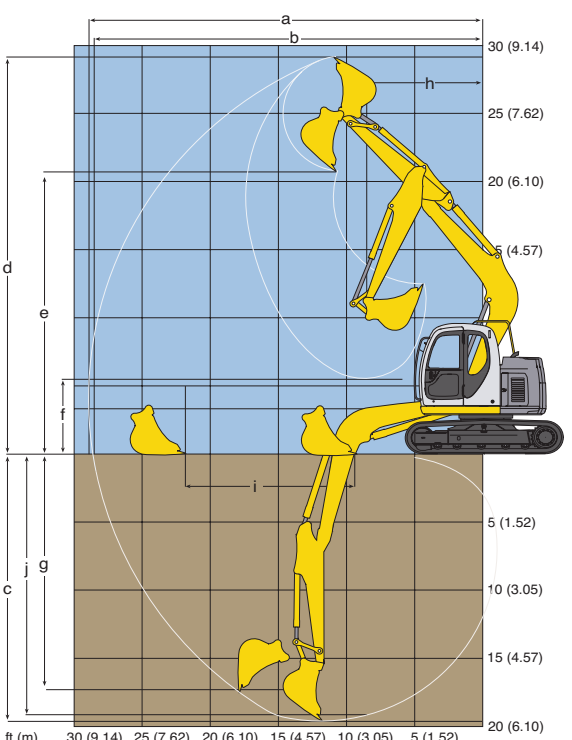
LIFTING CAPACITIES											
Standard Counter Weight											
135SR_{LC} Arm: 9' 8" (2.95 m) Bucket: 0.50 yd³ (0.38 m³) SAE heaped 705.6 lb (320 kg)											
A	5' (1.5 m)		10' (3.0 m)		15' (4.6 m)		20' (6.1 m)				
B	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	C		
15' (4.6 m)									*5,900 *2,600	4,300 1,900	lb kg
10' (3.0 m)					*7,400 *3,300	6,800 3,100	*6,500 *2,900	4,100 1,900	lb kg		
5' (1.5 m)			*15,100 *6,800	11,800 5,300	*9,500 *4,300	6,200 2,800	6,400 2,900	3,900 1,700	lb kg		
Ground Level			*18,300 *8,300	10,600 4,800	9,800 4,400	5,700 2,500	6,200 2,800	3,600 1,600	lb kg		
-5' (-1.5 m)	*10,300 *4,600	*10,300 *4,600	*18,500 *8,400	10,200 4,600	9,500 4,300	5,400 2,400	6,000 2,700	3,500 1,500	lb kg		
-10' (-3.0 m)	*16,100 *7,300	*16,100 *7,300	*16,400 *7,400	10,300 4,700	9,400 4,300	5,400 2,400			lb kg		
15' (4.6 m)			*11,400 *5,100	10,800 4,900					lb kg		

LIFTING CAPACITIES											
Optional Counter Weight: Std. + 1,323 lb (600 kg) Add On											
135SR_{LC} Arm: 9' 8" (2.95 m) Bucket: 0.50 yd³ (0.38 m³) SAE heaped 705.6 lb (320 kg)											
A	5' (1.5 m)		10' (3.0 m)		15' (4.6 m)		20' (6.1 m)				
B	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	C		
15' (4.6 m)									*5,800 *2,600	4,800 2,100	lb kg
10' (3.0 m)					*7,300 *3,300	*7,300 *3,300	*6,400 *2,900	4,600 2,000	lb kg		
5' (1.5 m)			*14,900 *6,700	12,900 5,800	*9,400 *4,200	6,800 3,100	7,000 3,100	4,300 1,900	lb kg		
Ground Level			*18,200 *8,200	11,700 5,300	10,600 4,800	6,300 2,800	6,700 3,000	4,000 1,800	lb kg		
-5' (-1.5 m)	*10,200 *4,600	*10,200 *4,600	*18,300 *8,300	11,400 5,100	10,300 4,700	6,000 2,700	6,500 2,900	3,900 1,700	lb kg		
-10' (-3.0 m)	*15,900 *7,200	*15,900 *7,200	*16,300 *7,400	11,500 5,200	10,300 4,600	6,000 2,700			lb kg		
-15' (4.6 m)			*11,400 *5,100	*11,400 *5,100					lb kg		

Notes:

1. Do not attempt to lift or hold any load that exceeds these rated values at their specified load radii and heights. Weight of all accessories must be deducted from the above lifting capacities.
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 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. Operator should be fully acquainted with the Operator's and Maintenance Manuals before operating this machine. Rules for safe operation of equipment should be followed at all times.
6. Capacities apply only to the machine as originally manufactured and normally equipped by KOBELCO Construction Machinery America LLC.

135SR_{LC}



This chart is a graphic representation of the working ranges for the SK160LC equipped with a 10' 6" (3.2 m) arm.

WORKING RANGES

Unit: ft-in (m)

ATTACHMENT	9' 8" (2.95)
a Max digging reach	28' 9" (8.77)
b Max digging reach at ground level	28' 5" (8.65)
c Max digging depth*	19' 7" (6.01)
d Max digging height*	29' 1" (8.86)
e Max dumping clearance*	21' 1" (6.44)
f Min dumping clearance*	5' 5" (1.65)
g Max vertical wall digging depth*	17' 2" (5.25)
h Min front swing radius	8' 8" (2.65)
i Horizontal digging stroke at ground level	15' 8" (4.77)
j Digging depth for 8' (2.4m) flat bottom	19' 2" (5.83)

* Excludes height of grouser bar.

DIGGING FORCE

Unit: lb (kg)

ARM LENGTH ft-in (m)	9' 8" (2.95 m)	
	SAE	ISO
Bucket digging force	19,000 (8,620)	21,357 (9,687)
Arm crowding force	12,569 (5,700)	13,061 (5,924)

PERFORMANCE

Bucket capacity (SAE heaped)	0.44-0.88 yd ³ (0.33-0.67m ³)
Travel speed	3.7/2.2 mph (6.0/3.5 km/h)
Swing speed	11.7 rpm
Gradeability	35° (70%)
Drawbar pulling force	28,500 lbs (12,925 kg)

REFILLING CAPACITIES

Unit: US gal (liters)

Fuel tank	44.4 (168)
Hydraulic oil reservoir	24.8 (94)
Hydraulic system including oil reservoir	37.0 (140)
Cooling system	4.8 (18)
Lubrication: Engine oil	3.4 (13)

SPECIFICATION SUMMARY

GENERAL			
Operating weight with Bucket	lb (kg)	30,870	(14,000)
Bucket Capacity Range	cu yd (m ³)	0.44-0.88	(.34-0.67)
ENGINE			
Make and Model	Isuzu	A-4BG1T	
Displacement	cu in (L)	264	(4.329)
Bore and Stroke	in (mm)	4.13"x4.92" (105x125)	
Horsepower SAE NET	HP(kW)@RPM	94 (70.6) @2,200	
WORKING RANGES (Std. Arm)			
Standard Arm	ft-in (m)	9' 8"	(2.95)
Bucket Digging Force	lb (kN)	19,000	(8,620)
Arm Digging Force	lb (kN)	12,569	(5,700)
Ground Level Reach	ft-in (m)	28' 5"	(8.65)
Max. Digging Depth	ft-in (m)	19' 7"	(6.01)
Max. Dumping Height	ft-in (m)	29' 1"	(8.86)
Max. Vertical Wall Digging Depth	ft-in (m)	17' 2"	(5.25)
Max. Lift Capacity-Side	lb (kg)	5,800	(2,500)
@ 15' Radius & Ground Level-Front	lb (kg)	9,800	(4,400)
HYDRAULIC SYSTEM			
Hydraulic Pump	No & type	2VP+1FG	
Rated Oil Flow	gpm (L/min)	2x31.4+13.5 (2x118+21)	
Operating Pressure	Implement-psi (MPa)	4,980	(34.3)

Travel	psi (MPa)	4,980	(34.3)
Swing	psi (MPa)	4,050	(27.9)
Control Circuit	psi (MPa)	710	(4.9)
UNDERCARRIAGE			
Track Overall Length	ft-in (m)	12' 3"	(3.74)
Track Overall Width w/Std. Shoe	ft-in (m)	8' 6"	(2.59)
Track Shoe Selection	in (mm)	23.6"	(600)
Travel Speed	mph (kmh)	3.7/2.2	(6.0/3.5)
Draw Bar Pull	lb (kN)	28,500	(12,925)
Ground Bearing Pressure	psi (kPa)	5.11	(35)
Ground Clearance	in (mm)	18"	(455)
SWING			
Swing Speed	rpm	11.7	
Swing Torque	lb-ft (kN • m)	28,175	(38)
Tail Swing Radius	ft-in (m)	4' 8"	(1.43)
SHIPPING DIMENSIONS			
Height	ft-in (m)	9' 3"	(2.81)
Width w/Std. Shoe	ft-in (m)	8' 6"	(2.59)
Length	ft-in (m)	24' 6"	(7.47)
REFILL CAPACITIES			
Fuel Tank	gal (L)	44.4	(168)
Hydraulic Reservoir	gal (L)	24.8	(94)

STANDARD EQUIPMENT

- AM/FM radio
- Arm: 9' 8" (2.95 m)
- Audible warning system for high coolant temperature, low engine oil pressure, clogged air filter and oil replacement interval
- Automatic engine deceleration
- Auxiliary hydraulics - combination one/two way with piping to the end of the arm with foot controls
- Boom: 15' 1" (4.6 m)
- Boom and arm holding (anti-drift) valves
- Cab is die formed, modular steel, full-vision, rubber mounted, sound insulated, windshield wiper, adjustable reclining operator's seat with lap safety belt, heater and defroster, cigarette lighter, ashtray, floor mat, cab light, control lever lock, tinted skylight with damper cylinder
- Climate control air conditioning/heating system
- Electric horn
- Electronic - hydraulic system pressure release
- Engine automatically idles down for low oil pressure
- Heavy duty batteries (2 x 12 volt 80 AH)
- Hydraulic oil cooler
- Hydraulic track adjusters
- Isuzu engine, model A-4BG1T
- Lifetime lubricated track rollers, idlers and sprockets, grease cylinder track adjuster, track link disassembly mechanism, long pitch sealed and strutted track links
- Mode selection:
 - Fine control mode
 - Standard mode
 - Heavy work mode)
- Multi-display monitor includes: system status, engine preheat status, low engine oil pressure warning, engine coolant temperature level warning, engine air cleaner restriction, battery charging system, low fuel level, CPU error indicator lamp, hour meter, fuel level and

NOTE: Due to our policy of continual product improvement, all designs and specifications are subject to change without advance notice.

- water temperature level gauges, 2-speed travel and swing release indicators
- Power outlet, 24 volt to 12 volt converter
- Removable travel levers with toe tabs
- Starting motor (24 V/4.5 KW), 30 Amp alternator
- Straight travel system
- Suspension seat—7-way adjustable
- Swing and travel automatic parking brakes
- Swing flashers
- Swing shockless valve
- Track shoes: 23.6" (600 mm) semi-triple grouser
- Travel alarm
- Travel—two speed with automatic shift
- Two lever control for boom, arm, bucket and swing; pilot operated wrist controls and foot pedals
- Warm up of engine and hydraulic system functions automatically
- Work lights—two front

OPTIONAL EQUIPMENT

- Bolt-on additional counterweight
- Boom & arm load (lock) holding valve
- Center track guides
- Control pattern changer (ISO/BHL)
- Hand controls for auxiliary hydraulics
- Hydraulic quick coupler
- Large selection of buckets
- Rotation (low flow) with hand control with piping
- Track shoe: 500 mm shoe with rubber pads
- Track shoe: 27.6" (700 mm) triple bar grouser
- Vandalism guards



KOBELCO®

Your competitive edge.

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135SRLC