STANDARD EQUIPMENT

ENGINE
- Diesel engine with turbocharger and intercooler
- Automatic engine deceleration
- Auto idle stop (AIS)
- Batteries (2 x 12V - 85Ah)
- Starter motor (24V - 5kW), 50 amp alternator
- Automatic engine shut-down for low engine oil pressure
- Engine oil pan drain valve
- Double element air cleaner

CONTROL
- Working mode selector (H-mode, S-mode and ECO-mode)
- Swing rebound prevention system
- Straight prop system
- Sealed & lubricated track links
- Greased track adjusters
- Automatic swing brake

MIRRORS & LIGHTS
- Three rearview mirrors
- Two front working lights

CAB & CONTROL
- Two control levers, pilot-operated
- Tilt eyes
- Horn, electric
- Integrated left-right slide-type control box
- Cab light (interior)
- Coat hook
- Luggage tray
- Large cup holder
- Detachable two-piece floor mat
- 7-way adjustable suspension seat
- Retractable seatbelt
- Headrest
- Handrails
- Heater and defroster
- Intermittent windshield wiper with double-spray washer
- Fitted safety glass
- Full-type front window and removable lower front window
- Easy-to-read multi-display monitor
- Automatic air conditioner
- Emergency escape hammer
- Radio, AM/FM stereo with speakers
- Travel-alarm
- Heightlizer for control box
- Gear pump
- Level indicator

OPTIONAL EQUIPMENT

- Dozer blade
- Wide range of buckets
- Various optional arms
- Wide range of shoes
- Boom safety valve
- Arm safety valve
- Front-guard protective structures
- May interfere with bucket action
- Additional hydraulic circuit
- Add-on counterweight
- Cab light
- Control pattern changer 2 way, 4way
- FOPS Level guard

Note: Standard and optional equipment may vary. Consult your KOBELCO dealer for specifics.

Note: This catalog 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. 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 catalog may be reproduced in any manner without notice.

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Kobelco gave the world its first heavy machinery shovel with an ultra-short rear swing. The SL135SR/SK135SR LC is versatile in every sense of the word, encapsulating all the technology Kobelco has developed and refined for greater friendliness to people and the urban environment. It sets a new standard for urban construction sites. Take Kobelco’s proprietary iNDr, for example. It delivers incredibly quiet operation. And AIS cuts fuel consumption and exhaust emissions to the bare minimum. So the new Kobelco SK135SR/SK135SR LC clears today’s stricter environmental standards without compromising profit.

To offer true value, construction machinery has to meet the needs of the times, quickly and effectively. And that means continually searching for the most fuel-efficient technologies, and delivering value you can’t find anywhere else. No one does that better than Kobelco.

**SK 135SR**
**SK 135SR LC**
Reducing fuel consumption: Earth-friendly performance

Kobelco engineers are constantly seeking to improve fuel efficiency. To that end, they’ve combined new engine technology that reduces exhaust emissions, with Kobelco’s proprietary energy-efficient system. The result is a machine that opens new frontiers in environmentally responsible operation, combining higher fuel efficiency with improved environmental performance.


New, Environmentally Friendly Engine

A newly developed engine raises the bar for construction machinery

The latest Kobelco construction machinery uses a Mitsubishi engine renowned for high fuel efficiency and environmental performance, and has been tuned specifically for use in Kobelco machines. This new, environmentally friendly engine changes conventional wisdom on balancing powerful performance with eco-friendliness.

PM emissions cut:

Particulate matter (PM) is mostly soot resulting from incomplete combustion. Improved combustion efficiency reduces PM emissions. DP filter further reduces PM emissions.

1. Common rail system
   - High-pressure injection atomizes the fuel, and more precise injection improves combustion efficiency. This also contributes to better fuel economy.

2. DP filter
   - Carbon builds up as soot in the diesel particulate filter and is burned off at high temperature. At low engine speed the exhaust temperature is too low, and the common rail multiple injection system raises the temperature sufficiently to burn off the soot.

NOx emissions cut:

At high temperatures, nitrogen and oxygen combine to produce nitrogen oxides (NOx). Reducing the amount of oxygen and lowering the combustion temperature results in much less NOx.

1. EGR cooler
   - While ensuring soft combustion, cooled emission gases are mixed with the intake air and recirculated into the engine. This reduces oxygen content and lowers combustion temperature.

Fuel Consumption

(Comparison with previous model)

About 21% reduction

The new ECO mode reduces fuel consumption by up to 21%.

PM Reduction

(Comparison with previous model)

About 92% reduction

New engine reduces PM emissions by about 92%, and NOx emissions by about 16%.

Energy-efficient System

ECO-mode: engineered for economy

Kobelco’s ECO-mode maximizes the operating efficiency of the engine and other components to achieve much greater fuel efficiency. Just flip a switch to choose the operation mode best suited to the task at hand and the working conditions.

Fuel Savings in Each Mode (SK135SR) (Comparison with previous model)

H-mode
- About 8% reduction for heavy duty where a higher performance level is required.

S-mode
- About 16% reduction for normal operation with lower fuel consumption.

E-mode
- About 21% reduction pulling priority on fuel consumption and economic performance.

Auto Idle Stop (AIS) reduces unnecessary fuel consumption

If the safety lock lever is engaged, AIS will stop the engine. This eliminates wasteful idling when no work is going on, and of course, cuts overall CO2 emissions.

Hydraulic system engineered to reduce energy loss

Kobelco’s proprietary hydraulic systems offer hydraulic fine positioning that reduces friction resistance and valves designed for higher efficiency minimizing energy loss throughout the system.
**Performance**

**Unbeatable Cost Performance**

Greater Work Capacity: Exceeding Expectations in Productivity

**Work Rate per Unit of Fuel**

(eco mode, compared with S mode on previous models)

About **19%** increase

More work with less fuel. About 19% improvement in ECO mode.

About 19% improvement in S mode.

---

**Ideal for Urban Work Sites**

Provides a Broad Working Range, Even in Close Quarters

Minimal rear turning radius improves efficiency

The tail of the upper body extends very little past the back end of the crawlers, so the operator can concentrate on the job at hand. This also reduces the risk of collision damage.

Easy workability in less than 3.5m of space

The compact design allows continuous 180° dig, swing, and load operations within a working space of just 3.5m.

Seamless feeling, smooth combined operations

The machines have inherited the various systems that make inching and combined operations easy and accurate. Leveling and other combined operations can be carried out with graceful ease.

Strong driving torque produces powerful travel capabilities

The tough undercarriage handles slopes and rough roads with ease while ensuring smooth changes in direction.

Long reach broadens working area

Maximum digging depth: 9,190mm

---

**Multi-Display Color Monitor for Easy Checking**

An LCD multi-display color monitor is standard. Operations data as well as the full range of machine-status data can readily be checked.

Analog gauge provides an intuitive reading of fuel level and engine water temperature

Green indicator light shows low fuel consumption during operation

Fuel consumption/switch indicator for rear camera images

Digging mode switch

One-tough attachment mode switch

A simple switch converts the hydraulic circuit and amount to match attachment changes. Icons help the operator to confirm the proper configuration at a glance.

---

**Max. Bucket Digging Force**

**90.1 kN (9.19tf)**

**Max. Arm Crowding Force**

**64.4 kN (6.56tf)**

---

**Maintenance Information**

Fuel consumption

Nibbler

Breaker

Rearview monitoring

**Smooth rotation operation cuts cycle times**

11.8-minute/1-speedy cycle times. Dig, swing, load operations—continuous operation makes any task faster.

**Easy workability in less than 3.5m of space**

The compact design allows continuous 180° dig, swing, and load operations within a working space of just 3.5m.

---

**3,490**

**2,000**

**1,490**

---

**Leveling and other combined operations can be carried out with graceful ease.**

**Strong driving torque produces powerful travel capabilities.**

The tough undercarriage handles slopes and rough roads with ease while ensuring smooth changes in direction.

**Long reach broadens working area.**

Maximum digging depth: 9,190mm
Cab Design That Puts the Operator First

Wide and open, the cab’s interior overflows with features that streamline operation

Comfort

Big roomy cab

The cube design makes the most of straight lines, so the cab interior is 4% more spacious than before. Operating space literally spreads out before the operator. And the 50Pa airtightness keeps dust outside.

Wide open field of view

On the right side, the large single window has no center pillar, and the whole cab is designed for a wide view, giving the operator a direct view ahead and to the left and right. Mirrors in three positions make it easy for the operator to make sure things are safe all around.

Wide doors and ample head clearance mean smooth entry and exit

The control box and safety lock lever tilt up at a larger angle, and the door handle height is positioned for easy cab entry and exit.

Equipment designed for comfort and convenience

The cab interior offers a host of operator comforts. The seat guarantees comfort whether on the job or at rest, and everything is ergonomically planned and laid out for smooth, stress-free operation.

Filled with New Equipment Even More Safety Features

Safety

Rearview camera and cab monitor let the operator confirm safe rearward operating space

The rearview camera comes as standard equipment. It helps confirm safe operating space to the rear, and conforms to ISO safety standards. The rearward view is shown on the color multi-display monitor in the cab.

Safe cab meets ROPS standards

Four strengthened pillars help the protective cab meet Roll-Over Protective Structure (ROPS) standards. In the unlikely event of a rollover, this structure protects the cab’s interior. Further, cab structural strength is equivalent to Level 1 falling object protective structure (FOPS), and conforms to the Ordinance on Industrial Safety and Health head guard standards as well.

Safety features that anticipate all kinds of danger

•Rearview mirrors on left and right, and third mirror at lower right optimize visibility and safety.

The double slide seat can be adjusted to the comfort of any operator.

Large cup holder

Powerful automatic air conditioner

Firewall

Hammer

Steering

Boom holding valve

Large handrail

Brush molding valve
To help operators work effectively even in close quarters, Kobelco pursued the ultimate in quiet operation. We also aimed for new levels in reliability and serviceability.

A new design approach leads to a revolutionary single-duct structure

**iNDr—Kobelco’s Proprietary Noise and Dust Reduction Technology**

The engine and cooling components are positioned in a single duct connecting the air intake to the exhaust outlet. This proprietary structure delivers a range of benefits such as reducing noise in the surrounding environment, maintaining machine performance, simplifying maintenance, and more.

**The results are exceptional. The big merits:**

**“Ultimate Low Noise” is achieved by minimizing sound leakage during operation**

Noise from the engine and cooling fan is absorbed by the duct, so the machine far surpasses legal requirements. Kobelco calls this system, which exceeds all noise standards, “Ultimate Low Noise,” and it reduces noise to 65 dBA at just 1.5m from the machine.

**Eliminating dust maintains cooling system performance**

The high-density 60-mesh filter blocks out dust in the intake air. This prevents clogging of the cooling system and the air cleaner, which maintains peak performance. The waveform filter allows air through the top of the waves while collecting dust at the bottom, ensuring a smooth airflow.

**Easy filter maintenance system simplifies cleaning**

Daily inspection consists of a visual check of the iNDr filter only. It looks dirty, it can be removed and washed without special tools.

**Remote Monitoring for Peace of Mind**

GEOSCAN is the remote monitoring system for Aceras Geospec series excavators. When a hydraulic excavator is fitted with this system, data on the machine’s operation, such as operating hours, location, fuel consumption, and maintenance status can be obtained remotely.

**Direct access to operational status**

- **Location data**
  - Latest location
  - Location records
- **Operating hours**
  - A. Comparison of operating times of machines at multiple locations shows which locations are louder and more productive.
  - Operating hours on site can be accurately recorded for running time calculations needed for rental machines, etc.
- **Fuel consumption data**
  - Daily report
  - Work data
  - Graph of work content
  - The graph shows how working hours are divided among different operating categories, including digging, siding, traveling and optional operations (N&B).
  - Fuel consumption
  - Fuel consumption graph
  - Mile hours
  - Work status

**Maintenance data and warning alerts**

Machine maintenance data

- Provides maintenance status of separate machines operating at multiple sites.
- Maintenance data is also relayed to KOBELCO service personnel, for more efficient planning of periodic servicing.

**Warning alerts**

- This system triggers an alarm if an anomaly is detected, preventing damage that could result in machine downtime.

**Additional features**

- **Operational data downloaded into a computer helps in formulating daily and monthly reports.**
- **Daily/monthly reports**
  - Data can be obtained by e-mail through the Internet, using a computer or cell phone.
  - Operational data downloaded into a computer helps in formulating daily and monthly reports.
- **Daily reports**
  - Daily reports
  - **Security system**
  - Engine start alarm
    - The system can be set to sound an alarm if the machine is started outside designated time.
  - **Area alarm**
    - The system can be set to sound an alarm if the machine is moved out of a designated area to another location.

**KOBELCO’s noise reducing components**

- Engine compartment sealed in noise isolation
- Engine compartment vent is blocked, except for intake and exhaust ports
- Exhausting the intake and exhaust duct eliminates any direct escape of sound, minimizing overall noise
Quality that Keeps on Shining. Valuable Assets Take Your Business to the Next Level.

Structural strength and proven reliability mean these machines can deal with heavy work loads and perform in rigorous site environments. From the lifecycle viewpoint, these machines maintain their value throughout their service lives.

Attachments and main body engineered for superior strength

The arm and boom attachment parts that take the most punishment are made of forged steel. Elements beneath the upper frame, the side deck, and so on, are also engineered for superior strength.

500-hour lubrication cycle for attachments

Attachment pins feature self-lubricating bushings, and bucket pins are protected by bushings known for superior anti-friction properties. The lubrication cycle is 250 hours for bucket-related areas, and 500 hours for other areas.

Durable quality looks 5-to-10 years into the future

High-quality urethane paints keep the body looking good year after year. Fold-up handrails on the cab are easy to repair, and the seat upholstery in the cab delivers superior durability.

Superior dust-collection capabilities, plus fuel filter and water separators to keep water out

High-grade filters offer higher capabilities. Dust and other impurities in the fuel are extracted, and a water separator is installed to keep the fuel line free of moisture.

Convenient “On the Ground” maintenance procedures

Fuel filter
Hydraulic pump
Wash-down tank is located under the cab floor mat
Engine quick-drain valve can be turned without tools

Fast maintenance requires only a few procedures

1-hour meter can be checked while standing on the ground

Easy cleaning saves time

Detachable two-piece floor mat has handle for easy removal A floor drain is located under the mat
Special crawler frame design makes it easy to clean off mud
Fuel tank features bottom flange and large drain valve
### Specifications

**Engine**
- **Type**: Water-cooled, 4-cylinder direct injection type diesel engine with intercooler turbocharger
- **No. of cylinders**: 4
- **Displacement**: 34.644 cm³
- **Rated power output**: 74.98 kW (101 HP) (@ 2,800 rpm)
- **Max. torque**: Net 375 N·m (900 lfm) (ISO4991: Without Fan) / 359 N·m (860 lfm) (ISO4992)

**Hydraulic System**
- **Type**: Tandem variable displacement piston pumps
- **Max. flow at rated engine speed**: 2 x 130 L/min, 1 x 200 L/min
- **Boom, arm and bucket**: 37.8 MPa (370 kgf/cm²)
- **Swing circuit**: 34.3 MPa (340 kgf/cm²)
- **Swing control**: 9.7 MPa (98 kgf/cm²)
- **Control pump**: Gear type

**Swing System**
- **Swing motor**: Axial piston motor
- **Brake**: Hydraulic, locking automatically when the swing control lever is in the neutral position
- **Swing speed**: 11.0 m/min (rpm)
- **Max. swing radius**: 1,490 mm

**Attachments**
- **Backhoe bucket and arm combination**

<table>
<thead>
<tr>
<th>Use</th>
<th>ISO heaped m³</th>
<th>ISO struck m³</th>
<th>Normal digging 0.45 m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket capacity</td>
<td>0.38</td>
<td>0.28</td>
<td>0.45</td>
</tr>
<tr>
<td>Struck m³</td>
<td>0.35</td>
<td>0.35</td>
<td>0.38</td>
</tr>
<tr>
<td>Opening width</td>
<td>850</td>
<td>910</td>
<td>1,000</td>
</tr>
<tr>
<td>With side cutter</td>
<td>700</td>
<td>820</td>
<td>900</td>
</tr>
<tr>
<td>Without side cutter m³</td>
<td>320</td>
<td>360</td>
<td>390</td>
</tr>
<tr>
<td>No. of bucket teeth</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Bucket weight kg</td>
<td>320</td>
<td>360</td>
<td>390</td>
</tr>
</tbody>
</table>

**Travel System**
- **Travel motors**: 2 axial piston, two-spool motors
- **Travel brakes**: Hydraulic brake per motor
- **Trailer shoes**: 44/49 each side
- **Max. speed**: 9.6 km/h
- **Draw bar pull**: 138 kN (14,100 kgf) (ISO7464)

**Cable & Control**
- **All-weather, sound-suppressed steel cab mounted on the silicon-oil-filled viscous mounts and equipped with a heavy, insulated floor mat**
- **Two hand levers for excavating and swing**
- **Electric rotary type engine throttle**

**Boom, Arm & Bucket**
- **Boom cylinders**: 160 mm x 1,092 mm
- **Arm cylinder**: 115 mm x 1,120 mm
- **Bucket cylinder**: 99 mm x 900 mm

**Lifting Capacity**

<table>
<thead>
<tr>
<th>Attachment</th>
<th>1.8 ton</th>
<th>2.8 ton</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Backhoe bucket</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Side reach</strong>, <strong>2.8 ton</strong></td>
<td>6.42 m</td>
<td>10.62 m</td>
</tr>
<tr>
<td><strong>Side reach</strong>, <strong>2.8 ton</strong></td>
<td>6.42 m</td>
<td>10.62 m</td>
</tr>
</tbody>
</table>

### Working Ranges

<table>
<thead>
<tr>
<th>Range</th>
<th>Unit/m</th>
<th>Long Arm</th>
<th>Long Crawler</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Max. digging reach</strong></td>
<td>6.34</td>
<td>7.30</td>
<td></td>
</tr>
<tr>
<td><strong>b. Max. digging reach at ground level</strong></td>
<td>8.19</td>
<td>8.64</td>
<td></td>
</tr>
<tr>
<td><strong>c. Max. digging depth</strong></td>
<td>3.52</td>
<td>3.78</td>
<td></td>
</tr>
<tr>
<td><strong>d. Max. digging height</strong></td>
<td>9.10</td>
<td>9.56</td>
<td></td>
</tr>
<tr>
<td><strong>e. Min. digging clearance</strong></td>
<td>5.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>f. Min. digging clearance</strong></td>
<td>2.00</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td><strong>g. Max. vertical wall digging depth</strong></td>
<td>4.89</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td><strong>h. Min. swing radius</strong></td>
<td>2.90</td>
<td>2.90</td>
<td></td>
</tr>
<tr>
<td><strong>i. Horizontal digging stroke at ground level</strong></td>
<td>4.21</td>
<td>4.70</td>
<td></td>
</tr>
<tr>
<td><strong>j. Digging depth for 2.4 m (8 ft) flat bottom</strong></td>
<td>5.29</td>
<td>5.79</td>
<td></td>
</tr>
<tr>
<td><strong>k. Bucket capacity ISO 6942 mm³</strong></td>
<td>0.50</td>
<td>0.36</td>
<td></td>
</tr>
</tbody>
</table>

**Digging Force**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Standard</th>
<th>Long Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bucket digging force</strong></td>
<td>83.1 (3,270)</td>
<td>81.5 (3,110)</td>
</tr>
<tr>
<td><strong>Arm crowning force</strong></td>
<td>84.4 (3,070)</td>
<td>84.4 (3,070)</td>
</tr>
</tbody>
</table>

**Dimensions**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Standard Arm</th>
<th>Long Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boom length</strong>, m</td>
<td>3.38</td>
<td>4.00</td>
</tr>
<tr>
<td><strong>Height from ground to cab</strong></td>
<td>2,690</td>
<td>2,490</td>
</tr>
<tr>
<td><strong>Height from ground to cab</strong>, m</td>
<td>7,490</td>
<td>7,490</td>
</tr>
<tr>
<td><strong>Height from ground to cab</strong>, m</td>
<td>7,490</td>
<td>7,490</td>
</tr>
<tr>
<td><strong>Height from ground to cab</strong>, m</td>
<td>7,490</td>
<td>7,490</td>
</tr>
</tbody>
</table>

### Refilling Capacities & Lubrications

- **Fuel tank**: 200 L
- **Cooling system**: 15L
- **Engine oil**: 12L
- **Travel reduction gear**: 2 x 2.1L
- **Swing reduction gear**: 1.85L
- **Hydraulic oil tank**: 85.2 L

### Operating Weight & Ground Pressure

- **In standard trim, with standard boom, 2.8 m arm, and 0.5 m ISO heaped bucket**

<table>
<thead>
<tr>
<th>Stage pressure zone (mm height)</th>
<th>1.2 m</th>
<th>1.4 m</th>
<th>1.6 m</th>
<th>1.8 m</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ground pressure</strong>, kgf/cm²</td>
<td>2.10</td>
<td>2.30</td>
<td>2.50</td>
<td>2.70</td>
</tr>
<tr>
<td><strong>Operating weight</strong> kg</td>
<td>13,300</td>
<td>15,300</td>
<td>17,300</td>
<td>19,300</td>
</tr>
<tr>
<td><strong>Digger (optional)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong> kg</td>
<td>14,460</td>
<td>14,460</td>
<td>14,460</td>
<td>14,460</td>
</tr>
<tr>
<td><strong>Ground pressure</strong> kgf/cm²</td>
<td>33.6</td>
<td>33.6</td>
<td>33.6</td>
<td>33.6</td>
</tr>
</tbody>
</table>