

Performance Design

SK 140 LC

KOBELCO

■ Bucket capacity:

0.38 - 0.50 m<sup>3</sup>

**■** Engine power:

73.0 kW / 2,000 min<sup>-1</sup>

■ Operating weight:

13,900 – 15,200 kg

SK140 u

We Save You Fuel





### THE ULTIMATE SLEEK AND STYLISH CAB DESIGN

True ergonomic functionality combined with modern design has resulted in a cabin interior that is sleek and comfortable, built for simplicity and operator comfort.

#### Jog dial

The jog dial integrates multiple functions to allow for simple navigation of machine information screens, even while wearing gloves.

#### **LED** backlights

LED backlighting on switches and dials provides a bright, clear view of controls, even in the dark, while delivering a premium look and feel.





# UNFORGETTABLE COMFORT

#### 1 Air suspension seat WEW

A GRAMMER® seat is installed as standard equipment, which achieves excellent shock absorption and superior ride comfort.

#### 2 Optimal air conditioning vent placement

Air conditioning vents are optimally placed around the cabin with air flow directed toward the operator's neck and back, providing more comfortable operation.

# **9** Ergonomic and low-effort pilot control levers

Pilot control levers are mounted on adjustable consoles, with an ergonomic design that allows movement without twisting, reducing operator fatigue.



#### **New Hydraulic Control**

Our newly upgraded hydraulic control system responds to shorter lever strokes than current models, delivering swifter, more precise movement and improved lever operability.

#### **4** LED door light

The LED interior light automatically turns on when the door is opened or when the ignition is set to OFF.

This ensures easy entry and exit at nighttime.

#### 6 ROPS Cab VEW

ROPS (Roll-Over-Protective Structure)-compliant cab clears ISO standards (ISO-12117-2: 2008) and ensures greater safety for the operator should the machine tip over.





# KOBELCO



EE +13













SCREEN BRIGHTNESS



MAINTENANCE



CONSUMPTION



LANGUAGE SELECTION







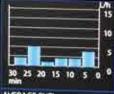












AVERAGE FUEL CONSUMPTION OPERABLE TIME 4L/h 12 h



### A WIDER VIEW BRINGS A WIDER RANGE OF USE

#### 10-inch colour monitor—the largest in the industry

The easy-to-operate menu screen facilitates easy reading and navigation. Images from the built-in cameras can be checked on the large screen, which helps to improve safety. In addition, each icon is easily recognisable.



The right camera and rear camera (right side view mode)



The right camera and rear camera (straight view mode)



Eagle Eye View



#### SAFETY ON FULL DISPLAY

Our high-resolution, large display shows right, left and rear side cameras together. Multiple camera modes allow operators to customize their display based on their needs to enhance awareness and jobsite safety.





# Screen display linked with the jog dial operation

The jog dial provides simple and intuitive control of all display screens. Turn the jog dial to the right or left to select an item and press the dial to confirm the selection.





### **GREATER MULTI-FUNCTION CAPABILITIES**

#### **Attachment mode**

The flow-rate modes of the bucket, breaker, nibbler, and rotating grapple are set before delivery, which allows you to start operating immediately. Mode settings for other attachments, such as the tilt rotator, can easily be added or changed.



# Adjustment for hydraulic flow

Divide ratio of hydraulic flow can be adjusted by service factory for custom usage.





### **EASY MAINTENANCE**



Right side



Pre-filter with integrated water separator



**Fuel filter** 



**Engine oil filter** 



**Opening Top guard**The Top guard is hinged, allowing easy access to the top window for serviceability.



Engine maintenance
A wide-opening engine bonnet
enables to access the engine unit
easily.



Two-stage air filter



Pre air cleaner



Left side (radiator and tool box space cooling system elements)
Laid out for easy access to radiator and cooling system.



Wide storage space for tool box



Openable airconditioner condenser Easy to clean inside



Battery shut-off switch

## **CONVENIENT AND SENSIBLE EQUIPMENT**



SK140:

Adjustable height NEW pilot control levers
Operator can adjust height of attachment control levers.



AM/FM Bluetooth® (hands-free) radio Audio streaming and hands free phone calling capability.



USB port / 12V power outlet



Smartphone holder You can use the holder with your smartphone connected to the USB port.

# GEOSCAN

# **Excavator Remote Monitoring System**



Location records

Current Situation

Setting Situation

Release time

Time difference

No Working Whole D

Head Office <u>YH07-09721</u> <del>2</del> <u>YH07-09789</u>

Opt Att F

Work data

YQ13-10454 YQ13-10481

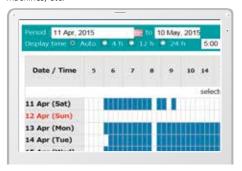
YT08-30374 YT08-30999

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Latest location

#### **Operating Hours**

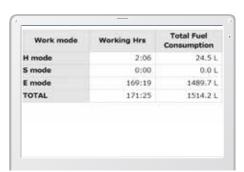
- A comparison of operating times of machines at multiple locations shows which locations are busier and more profitable.
- Operating hours on site can be accurately recorded, for running time calculations needed for rental machines, etc.



Daily report

#### **Fuel Consumption Data**

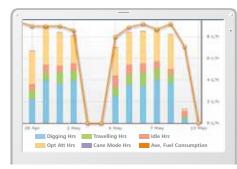
• Data on fuel consumption and idling times can be used to indicate improvements in fuel consumption.



Fuel consumption

#### **Graph of Work Content**

•The graph shows how working hours are divided among different operating categories, including digging, idling, travelling and optional operations.



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.

| Model                    | Serial No.              | Hour<br>Meter | Engine Oil |
|--------------------------|-------------------------|---------------|------------|
| SK135SRLC-<br>3/SK140SRL | 9H07-09721<br>0.38/0.35 | 734 Hr        | 434        |
| SK135SRLC-<br>3/SK140SRL | 9H07-09789<br>0.38/0.35 | 73 Hr         | 429        |
| SK210LC-9                | Y013-10454<br>0.8/0.7   | 960 Hr        | 58         |
| SK210LC-9                | Y013-10481<br>0.8/0.7   | 549 Hr        | 498        |
| SK755R-                  | YT08-30374              |               |            |

Maintenance

#### **Warning Alerts**

•This system gives an alert if an anomaly is sensed, preventing damage that could result in machine downtime.

# Alarm Information Can Be Received via E-mail

• Alarm information or maintenance notice can be received via e-mail, using a computer or a mobile device.



#### **Daily/Monthly Reports**

• Operational data downloaded onto a computer helps in formulating daily and monthly reports.

Alarm messages can be received on a mobile device.

#### **Security System**

#### **Engine Start Alarm**

• The system can be set up with an alarm if the machine is operated outside designated time.



Engine start alarm outside prescribed work time

#### Area Alarm

• It can be set up with an alarm if the machine is moved out of its designated area to another location.



Alarm for outside of reset area

### **Specifications**



| Model            | ISUZU 4JJ1XDJA  |  |
|------------------|---|--|
| Туре             | Four-cycle, liquid-cooled, direct injection type, with turbocharger, Tier 3 certified |  |
| No. of cylinders | 4   |  |
| Bore and stroke  | 95.4 mm x 104.9 mm  |  |
| Displacement     | 2.999 L   |  |
| Douge output     | 65.4 kW/2,000 min <sup>-1</sup> (ISO 9249: with fan)                                  |  |
| Power output     | 73.0 kW/2,000 min <sup>-1</sup> (ISO 14396: without fan)                              |  |
| May torque       | 341 N·m/1,600 min <sup>-1</sup> (ISO 9249: with fan)                                  |  |
| Max. torque      | 365 N·m/1,600 min <sup>-1</sup> (ISO 14396: without fan)                              |  |

## Travel system

| Travel motors         | Variable displacement piston,<br>two-speed motors |
|-----------------------|---|
| Travel brakes         | Hydraulic brake                                   |
| Parking brakes        | Wet multiple plate                                |
| Travel shoes          | 46 each side                                      |
| Travel speed          | 3.4/5.6 km/h                                      |
| Drawbar pulling force | 141 kN (SAE)                                      |
| Gradeability          | 70% {35°deg}                                      |

# Hydraulic system

| Pump                 |   |  |  |  |
|----------------------|---|--|--|--|
| Туре                 | Two variable displacement piston pumps<br>+ One gear pump |  |  |  |
| Max. discharge flow  | 2 x 130 L/min, 1 x 20 L/min                               |  |  |  |
| iviax. discharge now | Extra gear pump 1 × 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   |  |  |  |

### Cab & control

#### Cah

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

# 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 <sup>-1</sup>   |  |
| Tail swing radius | 2,190 mm   |  |
| Swing torque      | 40.4 kN·m  |  |

## Refilling capacities & lubrications

| Fuel tank             | 280 L                  |  |
|-----------------------|------------------------|--|
| Cooling system        | 16 L                   |  |
| Engine oil            | 17 L                   |  |
| Travel reduction gear | 2 x 2.1 L              |  |
| Swing reduction gear  | 1.65 L                 |  |
| Hydraulic oil tank    | 96.7 L tank oil level  |  |
| nyuraulic oli tank    | 186 L hydraulic system |  |

# **Attachments**

Backhoe bucket and combination

| Use              |                        | Backhoe bucket  Normal digging |      |       |
|------------------|------------------------|--------------------------------|------|-------|
|                  |                        |                                |      |       |
| Bucket capacity  | struck m³              | 0.28                           | 0.35 | 0.37  |
| Opening width    | With side cutter mm    | 800                            | 915  | 1,000 |
| Opening Width    | Without side cutter mm | 740                            | 855  | 940   |
| No. of teeth     |                        | 4                              | 4    | 5     |
| Bucket weight kg |                        | 340                            | 360  | 390   |
| Combination      | 2.38m standard arm     | 0                              | 0    | 0     |
| Combination      | 2.84m long arm         | ©                              | Δ    | ×     |



# **Working ranges**

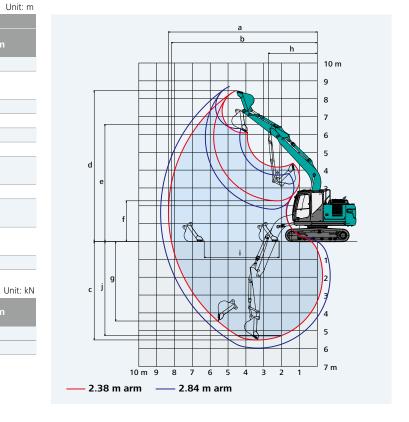
Unit: m a-Max. digging reach 8.34 8.78 b-Max. digging reach at ground level 8.17 8.62 c-Max. digging depth 5.52 5.98 d-Max. digging height 8.45 8.75 e-Max. dumping clearance 6.08 6.38 f- Min. dumping clearance 2.28 1.84 g-Max. vertical wall 4.45 4.91 digging depth h-Min. swing radius 2.75 2.84 i- Horizontal digging stroke at ground level 4.20 4.68 j- Digging depth for 2.4 m (8') 5.28 5.77 flat bottom Bucket capacity ISO heaped m<sup>3</sup> 0.50 0.38

#### Digging force (ISO 6015)

Arm length 2.38 m 2.84 m

Bucket digging force 105.4

Arm crowding force 64.0 58.0

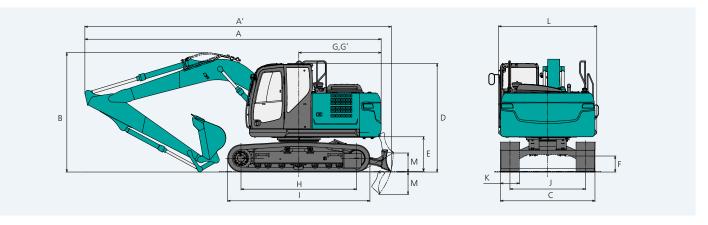


# **Dimensions**

| Ar | m length                                       | 2.38 m  | 2.84 m |
|----|--|---------|--------|
| Α  | Overall length                                 | 7,770   | 7,800  |
| A' | A' Overall length (with dozer blade)**         |         | 8,070  |
| В  | Overall height (to top of boom)                | 2,750   | 3,140  |
| C  | Overall width                                  | 2,490   |        |
| D  | Overall height (to top of cab)                 | 2,910   |        |
| Ε  | Ground clearance of rear end*                  | 910     |        |
| F  | Ground clearance* (with dozer**/without dozer) | 400/415 |        |

| G  | Tail swing radius                         | 2,190   |  |
|----|---|---------|--|
| G' | Distance from centre of swing to rear end | 2,170   |  |
| Н  | Tumbler distance                          | 3,040   |  |
| 1  | Overall length of crawler                 | 3,750   |  |
| J  | Track gauge                               | 1,990   |  |
| K  | Shoe width                                | 500     |  |
| L  | Overall width of upperstructure           | 2,590   |  |
| М  | Dozer blade (up / down)**                 | 500/585 |  |

\*Without including height of shoe lug  $\,$  \*\*Dozer blade is optional equipment

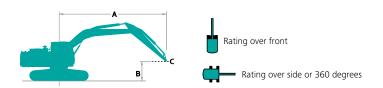


### **Operating weight & ground pressure**

In standard trim, with standard boom, 2.38 m arm, and 0.50 m<sup>3</sup> ISO heaped bucket

| 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 | SK140LC without dozer              | 41.4   | 35.1   | 30.7   |
| Ground pressure             |     | SK140LC with dozer                 | 43.8   | 37.2   | 32.4   |
| Operating weight            | kg  | SK140LC without dozer              | 13,900 | 14,200 | 14,400 |
| Operating weight            |     | SK140LC with dozer                 | 14,700 | 15,000 | 15,200 |

### Lift capacities



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

| SK140LC |    | Arm: 2.38 m Bucket: without Counterweight: 2,400 kg Shoe: 500 mm Dozer: without |          |        |          |        |          |        |          |               |        |        |  |  |
|---------|----|---|----------|--------|----------|--------|----------|--------|----------|---------------|--------|--------|--|--|
|         | Α  | 1.5 m   |          | 3.0 m  |          | 4.5 m  |          | 6.0 m  |          | At max. reach |        |        |  |  |
| В       |    | 1   | <b>—</b> | 1      | <b>—</b> | 1      | <b>—</b> | 1      | <b>—</b> | 1             | -      | Radius |  |  |
| 6.0 m   | kg |   |          |        |          |        |          |        |          | *1,800        | *1,800 | 5.56 m |  |  |
| 4.5 m   | kg |   |          |        |          | *3,400 | *3,400   | *3,300 | 2,330    | *1,670        | *1,670 | 6.49 m |  |  |
| 3.0 m   | kg |   |          | *6,230 | *6,230   | *4,270 | 3,470    | 3,560  | 2,240    | *1,670        | *1,670 | 6.98 m |  |  |
| 1.5 m   | kg |   |          | *5,440 | *5,440   | *5,280 | 3,200    | 3,440  | 2,130    | *1,760        | 1,650  | 7.11 m |  |  |
| G.L.    | kg |   |          | *6,240 | 5,470    | 5,140  | 3,030    | 3,340  | 2,040    | *1,980        | 1,680  | 6.91 m |  |  |
| -1.5 m  | kg | *5,410  | *5,410   | *9,080 | 5,480    | 5,080  | 2,980    | 3,320  | 2,020    | *2,450        | 1,890  | 6.34 m |  |  |
| -3.0 m  | kg | *9,240  | *9,240   | *7,830 | 5,630    | 5,170  | 3,050    |        |          | *3,650        | 2,470  | 5.30 m |  |  |

| SK140LC |    | Arm: 2.8 | Arm: 2.84 m Bucket: without Counterweight: 2,400 kg Shoe: 500 mm Dozer: without |        |          |        |          |        |          |        |          |               |          |        |  |
|---------|----|----------|---|--------|----------|--------|----------|--------|----------|--------|----------|---------------|----------|--------|--|
| В       |    | 1.5 m    |   | 3.0 m  |          | 4.5 m  |          | 6.0 m  |          | 7.5 m  |          | At max. reach |          |        |  |
|         |    | 1        | -   | 1      | <b>—</b> | 1      | <b>—</b> | 1      | <b>—</b> | 1      | <b>—</b> | 1             | <b>—</b> | Radius |  |
| 7.5 m   | kg |          |   |        |          |        |          |        |          |        |          | *2,030        | *2,030   | 4.62 m |  |
| 6.0 m   | kg |          |   |        |          |        |          | *2,090 | *2,090   |        |          | *1,700        | *1,700   | 6.12 m |  |
| 4.5 m   | kg |          |   |        |          |        |          | *2,960 | 2,360    |        |          | *1,590        | *1,590   | 6.97 m |  |
| 3.0 m   | kg |          |   | *5,240 | *5,240   | *3,850 | 3,530    | *3,330 | 2,260    |        |          | *1,580        | 1,570    | 7.43 m |  |
| 1.5 m   | kg |          |   | *7,940 | 5,840    | *4,940 | 3,240    | 3,450  | 2,130    | *1,960 | 1,510    | *1,660        | 1,490    | 7.55 m |  |
| G.L.    | kg |          |   | *6,390 | 5,460    | 5,140  | 3,030    | 3,330  | 2,020    |        |          | *1,850        | 1,510    | 7.36 m |  |
| -1.5 m  | kg | *4,640   | *4,640  | *8,880 | 5,410    | 5,050  | 2,940    | 3,280  | 1,980    |        |          | *2,220        | 1,660    | 6.84 m |  |
| -3.0 m  | kg | *7,770   | *7,770  | *8,360 | 5,510    | 5,080  | 2,970    |        |          |        |          | *3,060        | 2,080    | 5.88 m |  |
| -4.5 m  | kg |          |   | *5,960 | 5,800    |        |          |        |          |        |          | *3,960        | 3,510    | 4.19 m |  |

| SK140LC |    | Arm: 2.38 | Arm: 2.38 m Bucket: without Counterweight: 2,400 kg Shoe: 500 mm Dozer: with dozer up |        |          |        |          |        |              |               |          |        |  |  |  |
|---------|----|-----------|---|--------|----------|--------|----------|--------|--------------|---------------|----------|--------|--|--|--|
|         | А  | 1.5 m     |   | 3.0 m  |          | 4.5 m  |          | 6.0 m  |              | At max. reach |          |        |  |  |  |
| В       |    | -         | <b>—</b>  | 1      | <b>—</b> | 1      | <b>—</b> | 1      | <del>-</del> | 1             | <b>—</b> | Radius |  |  |  |
| 6.0 m   | kg |           |   |        |          |        |          |        |              | *1,800        | *1,800   | 5.56 m |  |  |  |
| 4.5 m   | kg |           |   |        |          | *3,400 | *3,400   | *3,300 | 2,460        | *1,670        | *1,670   | 6.49 m |  |  |  |
| 3.0 m   | kg |           |   | *6,230 | *6,230   | *4,270 | 3,660    | 3,560  | 2,370        | *1,670        | *1,670   | 6.98 m |  |  |  |
| 1.5 m   | kg |           |   | *5,440 | *5,440   | *5,280 | 3,390    | 3,440  | 2,260        | *1,760        | 1,750    | 7.11 m |  |  |  |
| G.L.    | kg |           |   | *6,240 | 5,800    | 5,140  | 3,220    | 3,340  | 2,170        | *1,980        | 1,790    | 6.91 m |  |  |  |
| -1.5 m  | kg | *5,410    | *5,410  | *9,080 | 5,820    | 5,080  | 3,170    | 3,320  | 2,150        | *2,450        | 2,010    | 6.34 m |  |  |  |
| -3.0 m  | kg | *9,240    | *9,240  | *7,830 | 5,960    | 5,160  | 3,240    |        |              | *3,650        | 2,620    | 5.30 m |  |  |  |

- 1. 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.
- 2. 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.
- 3. Arm top is defined as lift point.
- 4. 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.
- 5. 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.
- 6. Lift capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.



#### STANDARD EQUIPMENT

#### **ENGINE**

- Engine, ISUZU 4JJ1XDJA, Direct injection type,
  - with turbocharger, Tier 3 certified
- Auto Idle Stop
- Automatic engine deceleration
- Batteries (2 x 12 V 80 Ah)
- Starting motor (24 V 4.0 kW), 50 amp alternator
- Engine oil pan drain cock
- Double element air cleaner

#### **CONTROL**

- Working mode selector (H-mode, S-mode and ECO-mode)
- Auger & Breaker piping (proportional hand controlled)
- Extra piping (proportional hand controlled)
- Quick Hitch piping

#### **SWING SYSTEM & TRAVEL SYSTEM**

- Swing rebound prevention system
- Straight propel system
- Two-speed travel with automatic shift down
- Sealed & lubricated track links
- 500 mm steel shoes
- Grease-type track adjusters
- Automatic swing brake

#### **MIRRORS, LIGHTS & CAMERAS**

- Left side rear view mirror, rear view camera, right and left side view camera
- Three front working lights (LED)
- Swing flashers

#### **CAB & CONTROL**

- Two control levers, pilot-operated
- Horn, electric
- Integrated left-right slide-type control box
- LED door light (interior)
- Coat hook
- Large cup holder
- Detachable two-piece floor mat
- GRAMMER® air suspension seat with heater
- Retractable seatbelt
- Headrest
- Handrails
- Intermittent windshield wiper with double-spray washer
- Skylight
- Opening top guard (ISO 10262: 1998)
- Tinted safety glass
- Pull-type front window and removable lower front window
- Easy-to-read 10-inch LCD SCREEN multi-display monitor
- Automatic air conditioner
- Emergency escape hammer
- Radio (AUX & Bluetooth®)
- Hands-free telephone
- 12 V converter
- USB port
- Eagle eye view
- Travel alarm
- **GEOSCAN**
- Level indicator

#### **OPTIONAL EQUIPMENT**

- Long arm (2.84m)
- Wide range of shoes
- Wide range of buckets
- Front-guard protective structure (may interfere with bucket action)
- Heavier counterweight (+200 kg, +600 kg)
- Cab top work LED lights (two lights)

- Mechanical suspension seat
- Rain visor (may interfere with bucket action)
- Additional track guide
- Roll sun shade
- Dozer Blade (for 500mm, 600mm, 700mm shoe)
- Multi control valve

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



Note: Bluetooth® is a registered trademark of the Bluetooth SIG Inc. GRAMMER® is trademark of GRAMMER AG. registered in Germany and other countries. AdBlue® is a registered trademark of the Verband der Automobilindustrie e.V. (VDA).

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