

KOBELCO

Hydraulic Excavator **SK70SR**

Bucket Capacity: 0.11-0.28 m³ SAE Heaped
Engine Power: 40.5 kW (55 PS) at 2,100 rpm
Operating weight: 6,825 kg



The SR Series: The Standard for Operation Within a Small Rear Swing Radius



Imagine a full-performance hydraulic excavator series with an ultra-small rear swing radius that allows the operator to focus on the job in front of him, even in narrow spaces. The KOBELCO SR Series is designed with precisely that in mind, and has won the approval of operators on work sites throughout the world. SR Series machines offer all the benefits of small rear swing, but also do the same work as conventional models, providing optimal versatility. Now, we're proud to announce the next step in the evolution of the SR concept. Carrying on the proud tradition of their predecessors, the new SK70SR machine represents a new standard in small rear-swing radius operation.

Full-sized Performance With a Tiny Rear Swing Radius

Ultra-small Rear Swing Radius Lets You Concentrate on the Job

Ultra-small Rear Swing Radius Lets You Concentrate on the Job
The rear of the upper carriage stays nearly within the undercarriage width during swinging and provides you safer and more efficient operations.

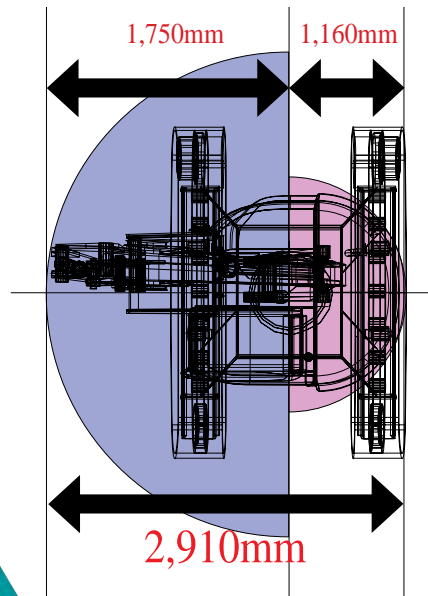
Increased Utilization, with two benefits

There's less chance of colliding with onsite obstacles, and operations are possible at previously inaccessible locations such as areas along walls or forestry, without constant worry about the rear. And operators benefit twice from a machine that does the same work as a conventional model, yet has the small rear swing advantage.



A Working Radius Less Than 3 m

When swinging 180°, the SK70SR needs less than four meters of operating space, making continuous digging, swinging, and loading operations possible on small worksites.



Overhang:
0 mm

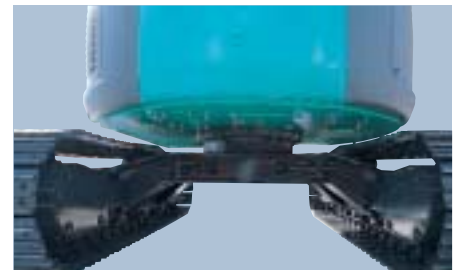
Three ITCS Operating Modes

Three operating modes are available with a simple touch on the switch.
H-Mode for heavy digging
S-Mode for energy-efficient operation
FC-Mode for fine control



Excellent Stability and Performance

The floor of the upper frame is constructed of a single, thick steel plate that provides optimal stability.

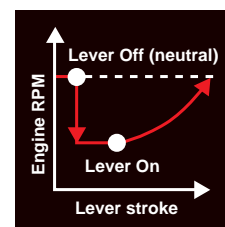


Automatic Two-speed Travel System

An automatic shift function ensures smoother, more efficient travel on the worksite.

High mode: 5.3 km/h
Low mode: 3.1 km/h

Automatic Deceleration Function



When the control lever is placed in neutral, engine speed is automatically lowered to save fuel, reduce the noise level and exhaust gas emissions. When machine operation is resumed, the engine speed increases gradually to ensure safety.

High-torque Travel Motors Provide Plenty of Power

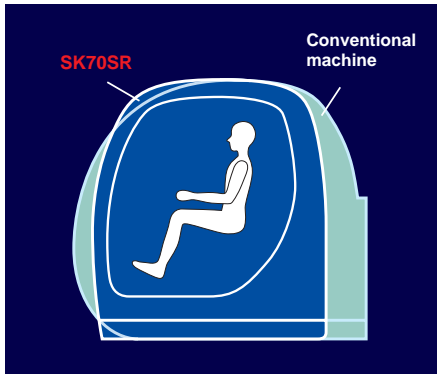
First-gear torque has been increased by approximately 8% compared with previous models for plenty of travel power.

Spacious, Quiet, and Comfortable Cab Makes the Difference

Spacious Comfort Cab Provides Plenty of Room

Though compact on the outside, the cab provides a comfortable and spacious working environment on the inside.

- High head clearance for easy entry.
- Cab width and foot space comparable to conventional machines.
- Double-slided seat mechanism ensures optimal operating posture.



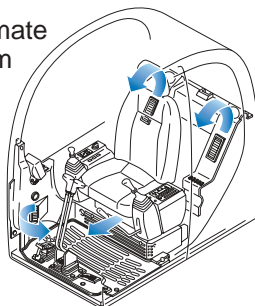
Low-noise, Low-vibration Design Minimizes Operator Fatigue

Quiet Cab with a low noise level, thanks to an insulation panel with deep grooves installed in the back. Vibration is also minimized with the help of sealed viscous cab mounts.



Automatic Climate Control System Provides Simple Environmental Control

The powerful, automatic climate control system is equipped with fresh air intake and defroster.

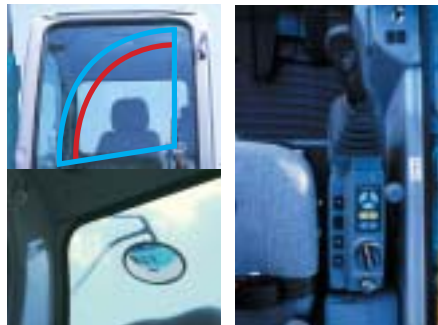


Cooling capacity: 4,8 kW (4,100 kcal/h)
Heating capacity: 5,7 kW (4,900 kcal/h)



Wide-view Ensures Safe Operation

- The area of the front window covered by the wiper has been increased by approximately 11%.
- A rear view mirror has been installed to eliminate the dead angle behind the counterweight.



- Additional view by 2 adjustable side mirrors that allows convenient loading on a trailer for transportation.

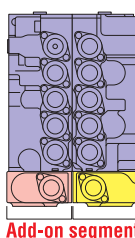


Many Features That Ensure Comfort

- Cup holder
- Large-capacity luggage box behind seat
- Pop-up sun roof
- Door-activated cab light



Broad Versatility Makes It Easy to Choose the Ideal Configuration



Additional Service Valves

Optional double-action valves can be installed on the control valve to meet versatile applications.

Dozer Blade

The large dozer blade is very efficient at piling up earth and filling holes, and the dozer hoses are joined together to make blade changes easy.

The SK70SR also features an optional tilt-angle blade.

Optional Rubber-padded Shoes

The steel shoes have holes that can be fitted with specially designed



rubber pads to protect the surface under the machine.



ENGINE

| | |
|----------------------------|---|
| Model: | ISUZU 4JG1NABGA |
| Type: | Direct injection, water-cooled, 4-cycle diesel engine |
| No. of cylinders: | 4 |
| Bore and stroke: | 95.4 mm × 107 mm |
| Displacement: | 3,059 cc |
| Rated power output: | 40.5 kW NET at 2,100 rpm 55 PS NET at 2,100 rpm |
| Max. torque: | 187 N·m at 1,800 rpm 19 kgf·m at 1,800 rpm |



HYDRAULIC SYSTEM

| | |
|-----------------------------------|--|
| Pump: | Two variable displacement pumps |
| Max. discharge flow: | 2 × 66 liters/min |
| Max. discharge pressure | |
| Excavating circuit (main): | 29.4 MPa (300 kgf/cm ²) |
| Propel circuit: | 29.4 MPa (300 kgf/cm ²) |
| Swing circuit: | 24.5 MPa (250 kgf/cm ²) |
| Control circuit: | 3.43 MPa (35 kgf/cm ²) |
| Pilot control pump: | Gear type |
| Control valves: | 6-spool |
| Oil cooler: | Air cooled type (Finned tube, forced ventilation) |



CAB & CONTROL

All-weather, sound suppressed steel cab is mounted on the silicon-sealed viscous mount. Large, tinted safety-glass windows, with pull type upper front window and removable lower front windows. Four-way adjustable dual-slide seat with wrist-action levers, electric rotary-type engine throttle, safety-lock lever, and easy-to-read multi-display monitor. Ventilated, pressurized climate control system, floor mat, intermittent windshield wiper with two-jet washer, light-action cab door, skylight, ashtray, cab light (interior), coat hook, cup holder, and utility box.



TRAVEL SYSTEM

| | |
|-------------------------------|--|
| Drive motors: | Independent, axial-piston, two-step motor each side |
| Brakes: | Independent, disc parking brake for each side |
| Track shoes: | 39 each side |
| Travel speed: | 5.3/3.1 km/h |
| Gradeability: | 70 % (35°) |
| Drawbar pulling force: | 69.3 kN (7,070 kgf) (SAE J1309 MAY 91) |



SWING SYSTEM

| | |
|---------------------------------|--|
| Brake: | Hydraulic, locking automatically when the swing control lever is in neutral position |
| Parking brake: | Hydraulic disc brake |
| Swing speed: | 12.5 rpm |
| Tail swing radius: | 1,160 mm |
| Min. front swing radius: | 2,090 mm |



BOOM, ARM, AND BUCKET

| | |
|-------------------------|-----------------|
| Boom cylinder: | 110 mm × 916 mm |
| Arm cylinder: | 95 mm × 813 mm |
| Bucket cylinder: | 80 mm × 735 mm |

DOZER BLADE

| | |
|----------------------------------|------------------------------------|
| Dimensions: | 2,320 mm (width) × 470 mm (height) |
| Working range (up/depth): | 360 mm × 230 mm |



REFILLING CAPACITIES AND LUBRICATION

| | |
|--------------------------|----------------|
| Fuel tank: | 85 liters |
| Cooling system: | 10 liters |
| Engine oil: | 10 liters |
| Track drives: | 2 × 1.7 liters |
| Swing drive: | 1.5 liters |
| Hydraulic oil | |
| Tank (oil level): | 55 liters |
| Hydraulic system: | 78 liters |



ATTACHMENTS

| Uses | | Backhoe bucket | | | | | |
|------------------------------|----------------------|-----------------|------|------|------|------|-----|
| | | General purpose | | | | | |
| Bucket capacity (SAE heaped) | m ³ | 0.11 | 0.14 | 0.18 | 0.22 | 0.28 | |
| Bucket capacity (Struck) | m ³ | 0.10 | 0.12 | 0.14 | 0.18 | 0.22 | |
| Opening width | With side cutters | mm | — | 480 | 550 | 650 | 750 |
| | Without side cutters | mm | 400 | 410 | 480 | 580 | 680 |
| No. of bucket teeth | | 3 | 3 | 3 | 4 | 4 | |
| Combinations | 1.65m arm | | ○ | ○ | ○ | ○ | ○ |
| | 2.07 m arm | | ○ | ○ | ○ | ○ | × |
| | 1.65 + 0.5 m arm | | ○ | ○ | ○ | ○ | × |

○ Recommended × Not recommended



WORKING RANGES

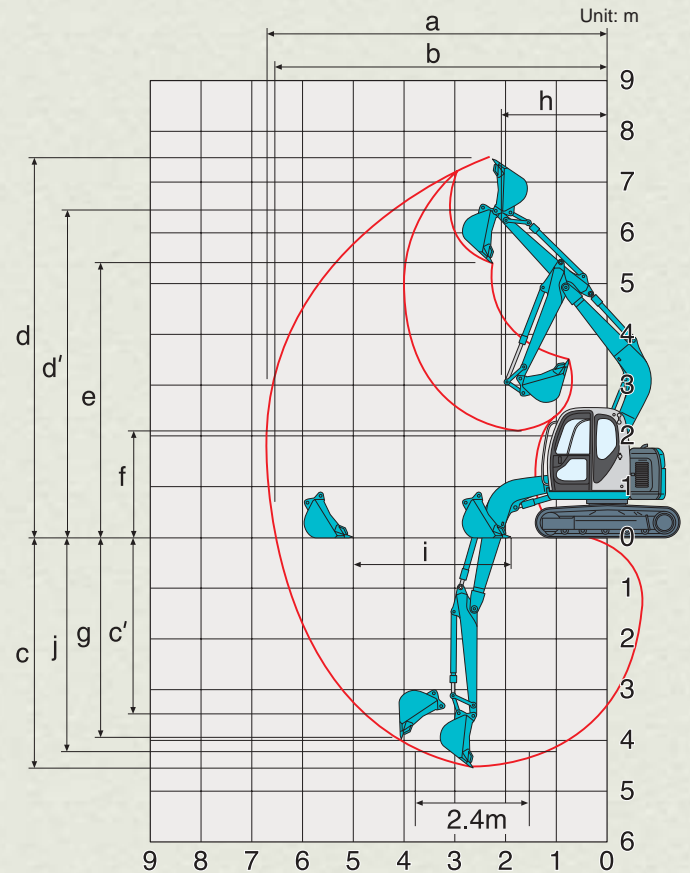
Unit: m

| Range | Arm 1.65 m | Standard 2.07m | 1.65 m + 0.5 m |
|---|---------------------|-------------------|-------------------|
| a - Max. digging reach | 6.31 | 6.71 | 6.76 |
| b - Max. digging reach at ground level | 6.17 | 6.57 | 6.63 |
| c - Max. digging depth | 4.10 | 4.52 | 4.60 |
| c' - Max depth of bucket hinge pin | 3.056 | 3.476 | 3.556 |
| d - Max. digging height | 7.18 | 7.50 | 7.52 |
| d' - Max. height of bucket hinge pin | 6.149 | 6.464 | 6.491 |
| e - Max dumping clearance | 5.12 | 5.43 | 5.46 |
| f - Min. dumping clearance | 2.38 | 2.07 | 1.90 |
| g - Max. vertical wall digging depth | 3.54 | 3.97 | 4.30 |
| h - Min. front swing radius | 1.75 | 2.09 | 1.90 |
| i - Horizontal digging stroke at ground level | 2.72 | 3.15 | 3.46 |
| j - Digging depth for 2.4 m flat bottom | 3.74 | 4.22 | 4.30 |
| Bucket capacity SAE heaped | m ³ 0.28 | 0.22 | |

DIGGING FORCE

Unit: kN (kgf)

| Arm length | 1.65 m | 2.07m | 1.65 + 0.5 m |
|----------------------|-----------------|-----------------|-----------------|
| Bucket digging force | 52.9 (5,400) | | |
| Arm crowding force | 39.2 (4,000) | 34.7 (3,535) | 32.8 (3,340) |

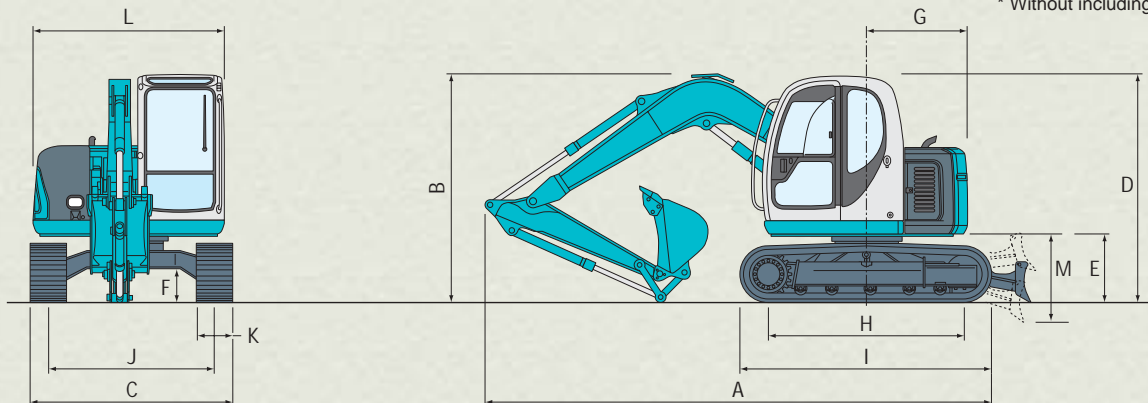


DIMENSIONS

| Arm length | 1.65 m | 2.07 m | 1.65 + 0.5 m |
|-----------------------------------|--------|--------|--------------|
| A Overall length | 5,780 | 5,790 | 5,770 |
| B Overall height (to top of boom) | 2,600 | | 2,810 |
| C Overall width (450 mm shoe) | 2,320 | | |
| D Overall height (to top of cab) | 2,600 | | |
| E Ground clearance of rear end | 750 | | |
| F Ground clearance | 380 | | |

| | | Unit: mm |
|---|---------------------------------|----------|
| G | Tail swing radius | 1,160 |
| H | Tumbler distance | 2,240 |
| I | Overall length of crawler | 2,860 |
| J | Track gauge | 1,870 |
| K | Shoe width | 450/600 |
| L | Overall width of superstructure | 2,170 |
| M | Dozer blade (up/down) | 360/230 |

* Without including height of shoe lug.

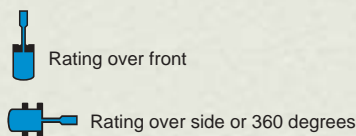
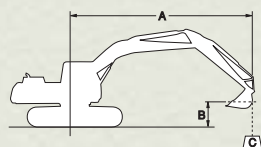


OPERATING WEIGHT AND GROUND PRESSURE

In standard trim, with standard boom, 2.07 m arm, and 0.22 m³ SAE heaped bucket.

| Shape | | Triple grouser shoe (even height) | | Flat shoe | Rubber shoe |
|------------------|----------------------------|-----------------------------------|-----------|-----------|-------------|
| Shoe width | mm | 450 | 600 | 450 | 450 |
| Overall width | mm | 2,320 | 2,470 | 2,320 | 2,320 |
| Ground pressure | kPa (kgf/cm ²) | 30 (0.31) | 23 (0.23) | 31 (0.32) | 31 (0.32) |
| Operating weight | kg | 6,825 | 7,050 | 6,980 | 6,700 |

LIFTING CAPACITY



A - Reach from swing centerline to bucket hook
 B - Bucket hook height above/below ground
 C - Lifting capacities in kilograms
 • Max. discharge pressure: 29.4 MPa (300kgf/cm²)

| | | SK70SR Standard Arm: 2.07 m Bucket: 0.22 m ³ SAE heaped 190 kg Shoe: 450 mm | | | | | |
|--------------|----|--|--------|--------|--------|-------|-------|
| B \ A | | 1.5 m | | 3.0 m | | 4.5 m | |
| | | | | | | | |
| 6.0 m | kg | | | *1,650 | *1,650 | | |
| 4.5 m | kg | | | | | 1,420 | 1,160 |
| 3.0 m | kg | | | *2,270 | *2,270 | 1,380 | 1,110 |
| 1.5 m | kg | | | 2,540 | 2,010 | 1,280 | 1,020 |
| Ground level | kg | | | 2,310 | 1,790 | 1,190 | 940 |
| -1.5 m | kg | *3,550 | *3,550 | 2,240 | 1,720 | 1,150 | 900 |
| -3.0 m | kg | *3,640 | *3,640 | *2,270 | 1,770 | | |

| | | SK70SR Standard Arm: 2.07 m Bucket: 0.22 m ³ SAE heaped 190kg Shoe: 600 mm | | | | | |
|--------------|----|---|--------|--------|--------|-------|-------|
| B \ A | | 1.5 m | | 3.0 m | | 4.5 m | |
| | | | | | | | |
| 6.0 m | kg | | | *1,650 | *1,650 | | |
| 4.5 m | kg | | | | | 1,480 | 1,210 |
| 3.0 m | kg | | | *2,270 | *2,270 | 1,430 | 1,160 |
| 1.5 m | kg | | | 2,650 | 2,090 | 1,340 | 1,070 |
| Ground level | kg | | | 2,410 | 1,870 | 1,250 | 980 |
| -1.5 m | kg | *3,550 | *3,550 | 2,340 | 1,810 | 1,210 | 950 |
| -3.0 m | kg | *3,640 | *3,640 | *2,270 | 1,840 | | |

Notes:

- Do not attempt to lift or hold any load that exceeds these rated values at their specified load radii and heights.
- 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.
- Ratings at bucket lift hook.
- The above rated loads are in compliance with SAE Hydraulic Excavator Lift Capacity Rating 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.

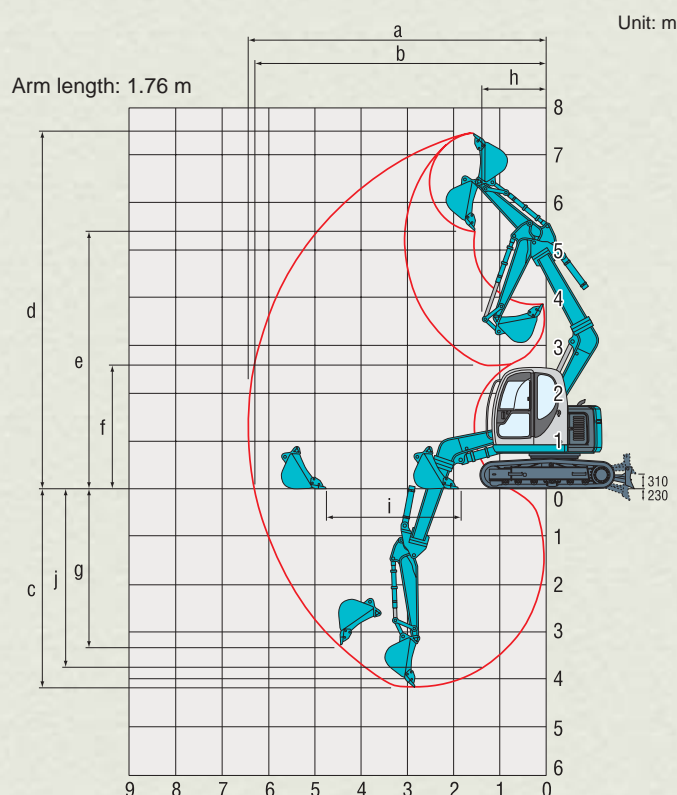
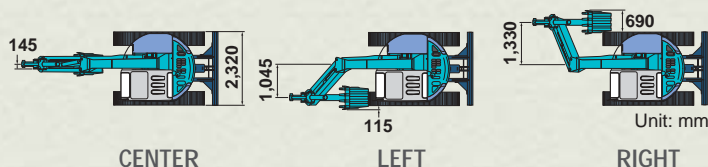
- When a dozer blade is attached to SK70SR, do not attempt to increase lifting capacity by setting the blade on the ground and using it as a stability.
- Operator should be fully acquainted with the operators' manual before operating this machine. Rules for safe operation of equipment should be followed at all times.
- Capacities apply only to the machine as originally manufactured and normally equipped by KOBELCO Construction Machinery, Ltd.

SIDE DIGGING ATTACHMENT

WORKING RANGES

Unit: m

| Arm | 1.76 m | | |
|---|----------|-------------|--------------|
| Offset | (Center) | Max. (left) | Max. (right) |
| a Max. digging reach | 6.44 | 6.06 | 5.75 |
| b Max. digging reach at ground level | 6.30 | 5.92 | 5.60 |
| c Max. digging depth | 4.19 | 3.82 | 3.51 |
| d Max. digging height | 7.48 | 7.14 | 6.86 |
| e Max. dumping clearance | 5.41 | 5.07 | 4.79 |
| f Min. dumping clearance | 2.57 | 2.24 | 1.96 |
| g Max. vertical wall digging depth | 3.28 | 2.93 | 2.64 |
| h Min. front swing radius | 1.41 | 1.56 | 2.05 |
| i Horizontal digging stroke at ground level | 2.84 | 2.86 | 2.88 |
| j Digging depth at 2.4m flat bottom | 3.80 | 3.42 | 3.11 |
| Bucket capacity m ³ SAE heaped | 0.28 | | |



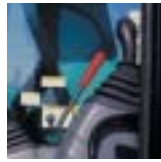
Reliable, Safe, and Easy to Maintain

Aluminum Oil Cooler Resists Corrosion and Is Easy to Clean



The oil cooler's anti-dust mesh can be easily disassembled and removed to simplify cleaning. (The photo shows the cooler with LHS cover removed.)

Reliable Brake and Lock Functions Enhance Safety



- Safety lever-lock prevents accidental operation during cab entry and exit.
- Swing and parking brakes keep the machine immobilized when stopped.
- Optional boom and arm lock valves keep the attachment from drifting.
- Emergency engine stop overrides all other functions to shut the engine down.

Multifunctional Check & Safety Monitor Is Easy to Read



- The simplified Check & Safety Monitor has 2 gauges and 6 display categories to provide instant verification of the machine's operating status at a glance.
- The 22-item self-diagnostic function pinpoints malfunctions before a serious problem develops and provides emergency back-up.
- The service diagnostic function (23 items) supports quick and accurate repair.

Simple, Rugged Design Ensures That the Machine Retains Its Long-term Value

- 1 High-quality urethane paint resists wear.
- 2 Steel-sheet cover is easy to repair.
- 3 The floor of the upper body is a single steel plate for added strength.
- 4 Tough, X-frame chassis can handle uneven terrain with ease.
- 5 Front idlers feature a thick shaft diameter for added strength.
- 6 Front idler spring cover protects against soil.
- 7 Three-piece crawler frames provide excellent rigidity.
- 8 Modified shape of travel motor covers keeps out mud and gravel.



Side bonnet has gas damper for easy opening.



Hydraulic oil level gauge shown against white background for easy reading.



Dozer cylinder cover offers greater cylinder protection.



The skylight is treated with a hard coating to improve durability.



Easy to Maintain



- The front panels of the oil cooler and radiator are designed with spaces that allow a hand to be inserted.
- Wavy-finned radiator resists clogging.
- The floor mat is designed for easy washing with water.

Environmental Features

- New low-emission engine (complying with TIER II)
- Advanced noise-control technology
- Electromagnetic Compatibility
- Non-amine engine coolant
- Biodegradable Hydraulic Oil (Optional)
- Newly designed engine oil catch plate

Note: This catalog may contain attachments and optional equipment that are not available in your area. And this catalog contains 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 may require. Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

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