

**KOBELCO**Performance  Design

# sk100msr

**■ Bucket capacity:****0.22–0.28 m<sup>3</sup>****■ Engine power:****53.7 kW/2,100 min<sup>-1</sup>****■ Operating weight:****9,280 kg (Triple grouser shoes)**



A close-up, low-angle shot of the front fender of a Suzuki GSX-R1000 motorcycle. The fender is a vibrant, metallic teal color. The text "sx1000MSR" is printed in a white, sans-serif font on the lower right side of the fender. The background is dark, making the teal color stand out. The lighting highlights the contours of the fender and the metallic texture of the paint.

**sx1000MSR**



# Performance Design

**With the release of the SK100MSR, KOBELCO has completely harmonised the values of PERFORMANCE and DESIGN. The SK100MSR delivers greater efficiency and productivity with increased power and speed, along with uncompromising operator comfort and machine operability.**

**In the pursuit of producing unique and unbeatable machines that provide comfort and productivity without equal, KOBELCO continues to rise to the challenge.**

# THE ULTIMATE IN SLEEK AND STYLISH 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

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

\*GRAMMER is trademark of GRAMMER AG. registered in Germany and other countries.



## 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.

## ③ 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.



## 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.



KOBELCO

04:33



SETTING MENU



PICTURE OF  
CAMERA



CLOCK  
SETTING



SCREEN  
BRIGHTNESS



MAINTENANCE



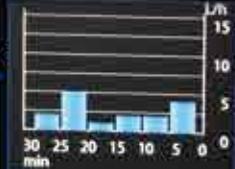
CONSUMPTION



LANGUAGE  
SELECTION



PRESSURE  
RELEASE



AVERAGE FUEL  
CONSUMPTION  
OPERABLE  
TIME

4L/h

12 h

FLOW

RATE 128 L/min



# 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. A password is required when starting the engine for greater security.



## Safety on full display

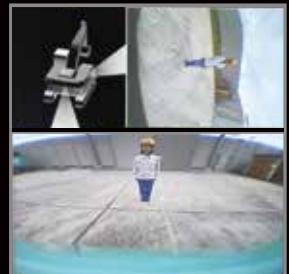
Images from the right camera and rear camera are displayed together on the large colour monitor. The right camera view can be selected between the straight view mode and right side view mode. In addition, the bird's-eye view mode can also be selected. As an optional setting, the eagle eye view mode can also be selected.



## 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.

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



The right camera and rear camera (straight view mode)



The bird's-eye view



The eagle-eye view (option)



## THE NEXT LEVEL OF PERFORMANCE

### Our high-power engine complies with Tier IV emission regulations

Compared to previous models, the engine output is significantly increased, which shortens the digging cycle time substantially. It attains high performances without reducing the speed even when heavy a load is applied or when travelling on a slope.



Model : YANMAR 4TNV98CT

#### Engine output

**Increased by 27.9%**

(Compared to the SK85MSR-3E model)

**>>> Digging cycle time Shortened by 15%**

(Compared to the SK85MSR-3E model)

#### Loaded boom lifting speed

**Increased by 38%**

(Compared to the SK85MSR-3E model)

#### Arm digging speed

**Increased by 37%**

(Compared to the SK85MSR-3E model)



>>> Hill-climbing speed

Increased by **22%**

(Compared to the SK85MSR-3E model)



# 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.

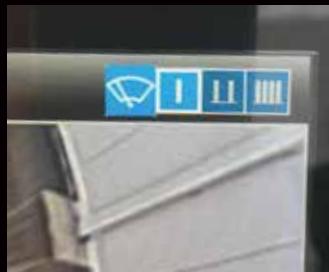


# CONVENIENT AND SENSIBLE EQUIPMENT



**Console mount**

The console-integrated seat allows for comfortable operation.



**Wiper adjustment function**

In addition to the intermittent wiper mode and continuous wiper mode, the one-time wiper mode was added.



**USB port/12 V power outlet**



**Smartphone holder**

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



**AM/FM Bluetooth® (hands-free) radio**

\*\*"Bluetooth®" is a registered trademark of the Bluetooth SIG Inc.



**Openable TOP guard**

The openable guard allows for easy maintenance.



**Increased clearance between the upper body and the shoes**



**Built-in rear camera/right camera**



**Engine oil drain cock**



**Remote control fuel drain cock**



**Counterweights + Additional Weights**

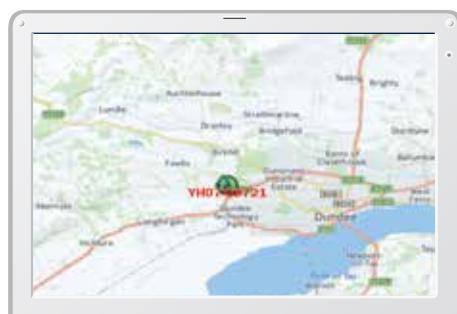
# Excavator Remote Monitoring System



## Direct Access to Operational Status

### Location Data

- Accurate location data can be obtained even from sites where communications are difficult.



Latest location



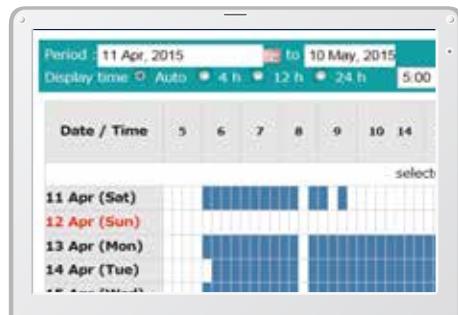
Location records



Work data

## Operating Hours

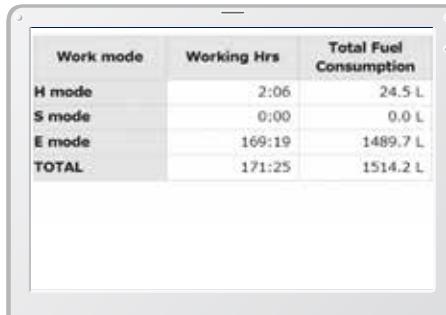
- A comparison of operating times of machines at multiple locations shows which locations are busier and more profitable.
- Operating hours on site can be accurately recorded, for running time calculations needed for rental machines, etc.



Daily report

## Fuel Consumption Data

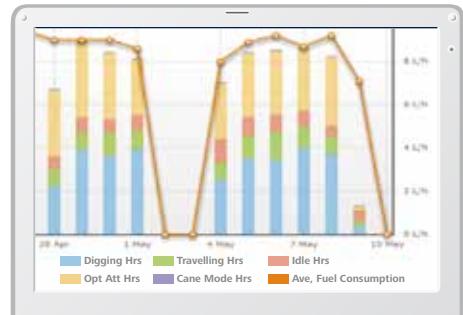
- Data on fuel consumption and idling times can be used to indicate improvements in fuel consumption.



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 Meter	Engine Oil
SK135SRLC-3/SK140SRL	YH07-09721	734 Hr	434
SK135SRLC-3/SK140SRL	YH07-09289	73 Hr	429
SK210LC-9	YQ13-10454	960 Hr	58
SK210LC-9	YQ13-10481	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 messages can be received on mobile device.

## Alarm Information Can Be Received through E-mail

- Alarm information or maintenance notice can be received through e-mail, using a computer or cell phone.

## 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



## Engine

Model	YANMAR 4TNV98CT
Type	Four-stroke, liquid-cooled, direct injection diesel, turbo charged, Tier IV certified
No. of cylinders	4
Bore and stroke	98 mm x 110 mm
Displacement	3.318 L
Rated power output	51.5 kW/2,100 min <sup>-1</sup> (ISO 9249: with fan) 53.7 kW/2,100 min <sup>-1</sup> (ISO 14396: without fan)
Max. torque	289 N.m/1,365 min <sup>-1</sup> (ISO 9249: with fan) 296 N.m/1,365 min <sup>-1</sup> (ISO 14396: without fan)



## Travel system

Travel motors	Variable displacement piston, two-speed motors
Travel brakes	Hydraulic brake
Parking brakes	Wet multiple plate
Travel shoes	39 each side
Travel speed (2nd/1st)	5.0/2.7 km/h
Drawbar pulling force	76 kN (ISO 7464)
Gradeability	58% (30°)



## Cab & control

<b>Cab</b>	All-weather, sound-suppressed steel cab mounted on the silicon-sealed viscous mounts and equipped with a heavy, insulated floor mat
<b>Control</b>	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 cylinder	110 mm x 916 mm
Arm cylinder	95 mm x 839 mm
Bucket cylinder	85 mm x 762 mm
Boom swing cylinder	105mm X 586mm



## Dozer blade

Dozer cylinder	145 mm x 189 mm
Dimension	2,300 mm {for 450 mm shoe} (width) x 455 mm (height)*
Working range	500 mm (up) x 500 mm (down)

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



## Refilling capacities & lubrications

Fuel tank	120 L
Cooling system	12.8 L
Engine oil	11.8 L
Travel reduction gear	2 x 1.3 L
Swing reduction gear	1.5 L
Hydraulic oil tank	44 L tank oil level 89 L hydraulic system



## Attachments

Backhoe bucket and combination

Use		Backhoe bucket	
Bucket capacity	ISO heaped	$m^3$	0.28
	Struck	$m^3$	0.21
Opening width	With side cutter	mm	750
	Without side cutter	mm	680
No. of teeth			4
Bucket weight	kg		210
Combination	1.87 m arm		◎
	2.13 m arm		○

◎ Standard ○ Recommended

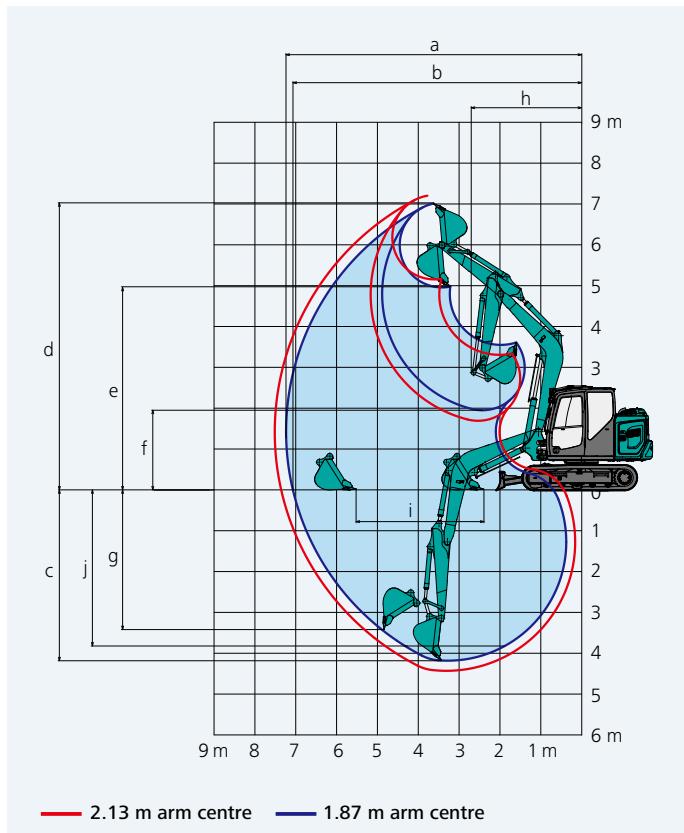


## Working ranges

Boom	3.50 m		Unit: m
	Arm	1.87 m	2.13 m
Range			
a-Max. digging reach	7.24	7.50	
b-Max. digging reach at ground level	7.07	7.34	
c-Max. digging depth	4.18	4.44	
d-Max. digging height	7.01	7.23	
e-Max. dumping clearance	4.98	5.18	
f-Min. dumping clearance	1.95	1.70	
g-Max. vertical wall digging depth	3.42	3.75	
h-Min. swing radius	2.73	2.80	
i-Horizontal digging stroke at ground level	3.11	3.51	
j-Digging depth for 2.4 m (8') flat bottom	3.82	4.12	
Bucket capacity ISO heaped m <sup>3</sup>	0.28	0.22	

## Digging force (ISO 6015)

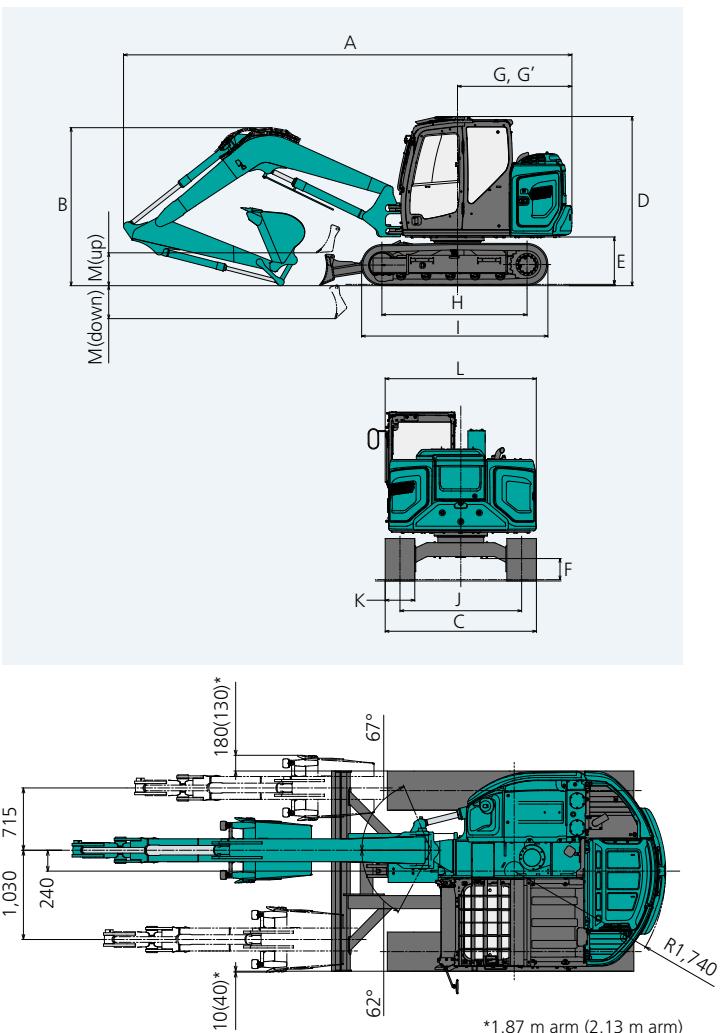
Arm length	1.87 m	2.13 m	Unit: kN
Bucket digging force		60.3	
Arm crowding force	37.1	33.6	



## Dimensions

Boom	3.50 m		Unit: mm
Arm length	1.87 m	2.13 m	
A Overall length	6,820	6,840	
B Overall height (to top of boom)	2,400	2,550	
C Overall width	2,300		
D Overall height (to top of cab)	2,570		
E Ground clearance of rear end*	720		
F Ground clearance*	320		
G Tail swing radius	1,740		
G' Distance from centre of swing to rear end	1,740		
H Tumbler distance	2,210		
I Overall length of crawler	2,830		
J Track gauge	1,850		
K Shoe width	450		
L Overall width of upper structure	2,300		
M Dozer blade (up / down)	500/500		

\*Without including height of shoe lug

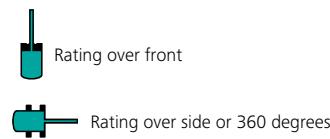
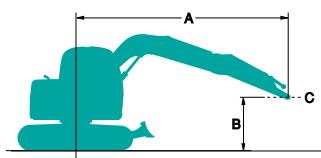


## Operating weight & ground pressure

In standard trim, with standard boom, 1.87 m arm, and 0.28 m<sup>3</sup> ISO heaped bucket

Shaped	Triple grouser shoes (even height)
Shoe width mm	450
Overall width of crawler mm	2,300
Ground pressure kPa	42
Operating weight kg	9,280

# Lift capacities



A: Reach from swing centreline to arm top  
 B: Arm top height above/below ground  
 C: Lift point  
 Bucket: Without bucket  
 Relief valve setting: 29.4 MPa {300 kgf/cm<sup>2</sup>}

SK100MSR		Arm: 1.87 m Bucket: Without counterweight: 1,050 kg + 300 kg Shoe: 450 mm Dozer: Blade up									
A		1.5 m		3.0 m		4.5 m		6.0 m		At max. reach	
		B	Rating over front	Rating over side	Radius						
6.0 m	kg									*1,830	*1,830
4.5 m	kg					*2,040	1,950			*1,420	*1,420
3.0 m	kg			*3,280	*3,280	2,170	1,880			*1,380	1,210
1.5 m	kg					2,040	1,750	1,340	1,170	1,280	1,110
G.L.	kg			3,590	2,960	1,950	1,670			1,320	1,140
-1.5 m	kg	*3,950	*3,950	3,620	2,980	1,940	1,660			1,570	1,350
-3.0 m	kg			*2,300	*2,300					*1,760	*1,760
											3.64 m

SK100MSR		Arm: 2.13 m Bucket: Without counterweight: 1,050 kg + 300 kg Shoe: 450 mm Dozer: Blade up									
A		1.5 m		3.0 m		4.5 m		6.0 m		At max. reach	
		B	Rating over front	Rating over side	Radius						
6.0 m	kg									*1,460	*1,460
4.5 m	kg					*1,860	*1,860			*1,170	*1,170
3.0 m	kg					*2,180	1,890	1,380	1,200	*1,130	1,130
1.5 m	kg					2,040	1,760	1,340	1,160	1,190	1,030
G.L.	kg			3,570	2,930	1,940	1,660	1,300	1,120	1,220	1,060
-1.5 m	kg	*3,420	*3,420	3,580	2,940	1,910	1,630			1,430	1,230
-3.0 m	kg			*2,870	*2,870					*1,810	*1,810
											4.13 m

**Note:**

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 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

- YANMAR 4TNV98CT, Diesel engine with turbocharger and intercooler, Tier IV certified
- Auto Idle Stop
- Automatic engine deceleration
- Batteries (2 x 12 V - 64 Ah)
- Starting motor (24 V - 3.5 kW), alternator (24V - 1.44kW)
- Engine oil pan drain cock
- Double element air cleaner

### CONTROL

- Working mode selector (H-mode, S-mode and ECO-mode)
- Rotating & N&B 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
- 450 mm track shoes
- Grease-type track adjusters
- Automatic swing brake
- Dozer Blade

### MIRRORS, LIGHTS & CAMERAS

- Rear view mirror, Eagle-eye view camera (Rear, Right, Left)
- LED work lights : 2 on boom, 1 on upper frame, 2 on rear counterweight

### 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
- Openable 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 & USB & Bluetooth®)
- 12 V converter
- Hands-free telephone
- Travel alarm
- GEOSCAN
- Large footrest
- Front roll screen

## OPTIONAL EQUIPMENT

- Various optional arms
- Front-guard protective structure (may interfere with bucket action)
- Cab top work LED lights (two lights)
- Mechanical suspension seat

- Rain visor (may interfere with bucket action)
- Additional track guide
- Multi control valve
- BHL lever

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

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\*GRAMMER is trademark of GRAMMER AG. registered in Germany and other countries.

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