

KOBELCO®

Your competitive edge.

2005R_{LC}

WT 48,500 lb.

HP 123 SAE NET

BKT CAP .88~1.25 cu yd



SHORT RADIUS Hydraulic Excavator

PRODUCTIVITY



CAB & CONTROLS

Kobelco knows that operator comfort has a direct influence on performance. That's why we have created an ideal balance between comfort and logistics in the 200SRLC'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
- Front window slides open, up and out of the way. The bottom piece of glass is removable and easily stored
- Low noise and vibration levels due to viscous, silicon-filled cab 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.

24 to 12 Volt Converter

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

Gauge Cluster

The 200SRLC 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.

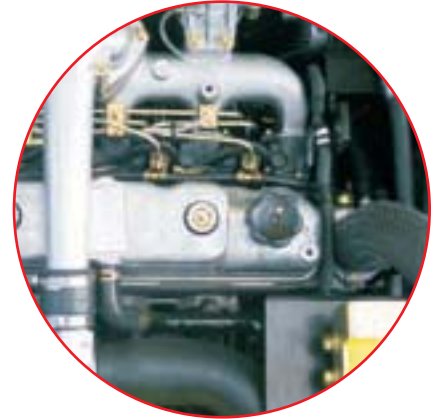
A state-of-the-art computer controls the engine and pumps so that they work together and respond automatically to the operator's commands. High and low pressure sensors work in conjunction with the engine speed sensor to determine what the operator is demanding from the machine and what the current machine 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; auto engine deceleration with progressive RPM recovery tailored to operator or job requirements; and, high horsepower on demand.

EXCEPTIONAL ENGINE

Rock-Solid Reliable, Isuzu Engine

The heart of any machine is its power source, and the 200SR_{LC} is powered by the proven reliability of the Isuzu 4-cycle diesel engine, with an impressive 123 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 AA-4BG1TC
- Direct injection, water cooled 4-cylinder, 4-cycle diesel
- 264 cu. In. (4.33 liters) displacement
- 123 HP (91.9 kW) @ 2,200 rpm; SAE NET
- 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 200SR_{LC} to keep maintenance headaches and downtime to a minimum. The sophisticated 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. A light-weight 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 200SR_{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 200SR_{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 200SR_{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 200SRLC's 3.3 inch tail swing design redefines the effectiveness of the whole 20-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.

Short Tail Swing

In the case of the 200SRLC, the tail swing radius is so small that the counterweight of the machine only extends past the width of the tracks 3.3 inches 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 can operate in an extremely confined space where few others in this weight class can fit. Even with only 3.3 inches of counterweight overhang, the lifting capacity of the 200SRLC is comparable to conventional excavators.

Minimal Front Swing Radius

The 200SRLC also has a very short front swing radius of only 3' 9" over the side of the machine with the standard arm. The combination of a short front swing radius and a 3.3 inch counterweight overhang allow this machine to complete a swing-dumping operation within a 14' 6" width. This working width is more commonly seen on a machine weighing half as much.

Variable Swing Priority

Variable swing priority provides excellent swing control during simultaneous operations with the arm and swing. This provides full swing torque while cutting the side of a ditch.

TRAVEL SYSTEM

The travel system aboard the 200SRLC is among the fastest and most sophisticated in the industry. A fast travel speed of 3.1 mph, combined with Kobelco's rugged construction standards make for one of the most productive excavators around.

Straight Propel System

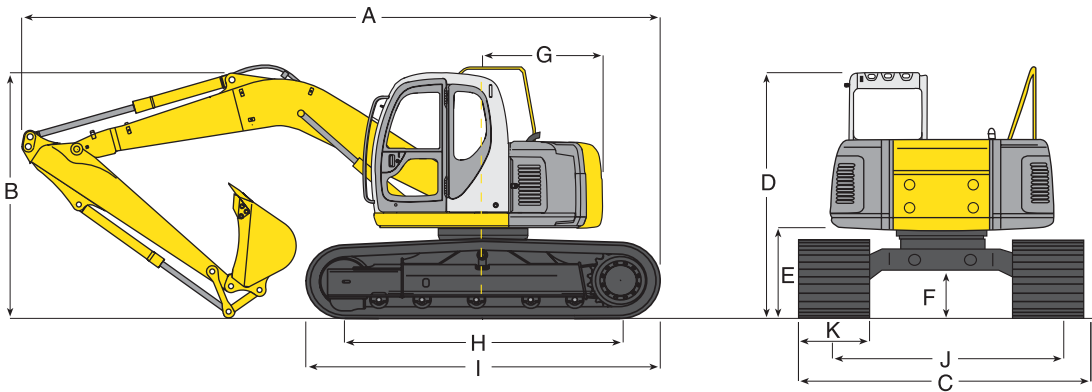
The flow from two hydraulic pumps is logically directed to allow fast speeds when traveling and unerringly straight travel while operating attachments. This Straight Propel System ensures straight-line travel when using other functions, making jobs like laying pipe much easier and more productive.

Two Speed Travel

The 200SRLC gives you a choice of a high speed setting at 3.1 mph to get you across the job site quickly or a high torque setting at 2.2 mph to climb steep inclines and go through the toughest ground conditions.



WEIGHTS & DIMENSIONS



WEIGHTS

Overall Width ft-in (m)	10' 6" (3.19)
Ground pressure psi (kPa)*	4.93 (34)
Operating weight lb (kg)	48,500 (22,000)

* Ground pressure with standard (800 mm) shoes.

DIMENSIONS

Unit ft-in (m)

ARM LENGTH	8' 6" (2.6)	9' 10" (3.0)
A Overall length	26' 11" (8.20)	26' 10" (8.18)
B Overall height (to top of boom)	10' 0" (3.05)	9' 9" (2.98)
C Overall width	10' 6" (3.19)	10' 6" (3.19)
D Overall height (to top of cab)*	10' 0" (3.06)	10' 0" (3.06)
E Ground clearance of rear end*	3' 5" (1.03)	3' 5" (1.03)
F Ground clearance*	17.7" (450 mm)	17.7" (450 mm)
G Tail swing radius	5' 6" (1.68)	5' 6" (1.68)
H Tumbler distance	12' 0" (3.66)	12' 0" (3.66)
I Overall length of crawler	14' 7" (4.45)	14' 7" (4.45)
J Track gauge	7' 10" (2.39)	7' 10" (2.39)
K Shoe width	31.5" (800 mm)	31.5" (800 mm)

*Excludes height of grouser bar.

HYDRAULIC SYSTEM

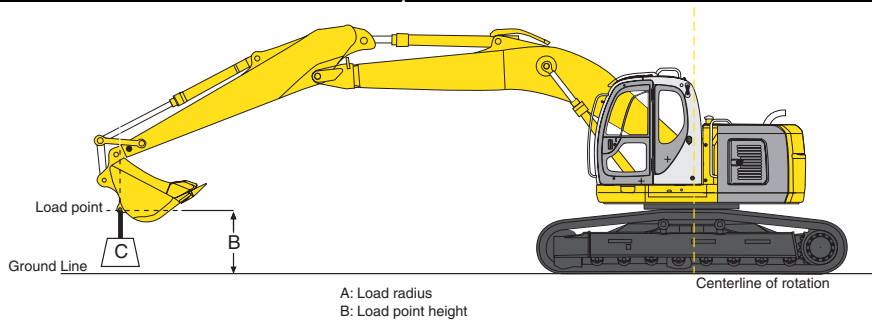
Pumps	2 variable displacement
Max discharge flow	2 x 46.5 + 5 US gal/min (2 x 176 + 19 lit/min)
Max discharge pressures:	
Boom, arm & bucket	4,980 psi (34.3 MPa)
Power boost	5,470 psi (37.8 MPa)
Travel circuit	5,190 psi (35.8 MPa)
Control circuit	710 psi (5.0 MPa)
Swing pressure	4,060 psi (28.0 MPa)
Control valves	6 spool

BUCKET SELECTION CHART

Bucket Duty	Capacity (SAE) Cubic Yard (m ³)	Width Inches (m)	Weight lb (kg)	Arm ft-in (mm)	
				8' 6" (2.6m)	9' 10" (3.0)
General Purpose	0.88 (.672)	24" (.609)	1,165 (528)	H	H
	0.91 (.695)	30" (.762)	1,325 (601)	H	H
	1.14 (.871)	36" (.914)	1,450 (658)	H	M
	1.25 (.960)	42" (1.066)	1,651 (749)	M	L
Heavy Duty	0.68 (.519)	24" (.609)	1,250 (567)	H	H
	0.91 (.695)	30" (.762)	1,420 (644)	H	M
	1.14 (.871)	36" (.914)	1,560 (708)	M	L
	1.25 (.960)	42" (1.066)	1,730 (785)	L	X
Severe Duty	0.63 (.481)	26" (.660)	1,455 (660)	H	H
	0.75 (.573)	31" (.787)	1,590 (721)	H	H
	0.88 (.672)	37" (.939)	1,790 (812)	M	M
	1.13 (.871)	43" (1.092)	2,000 (907)	L	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:
5,470 psi (37.8 MPa)
- Track shoe: 31.5" (800 mm) Triple grouser
- Boom: 16' 7" (5.05 m)

LIFTING CAPACITIES

Shoe: 31.5" (800 mm) triple grouser

200SR _{LC} Boom 16' 7" Arm: 9' 10" (3.0 m) Bucket: 0.82 cu yd (0.63 m ³) SAE heaped - 1,300 lb (590 kg)											
A	5' (1.5 m)		10' (3.0 m)		15' (4.6 m)		20' (6.1 m)		25' (7.6 m)		
B	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	C
25' (7.6 m)					*5,460	*5,460					lb kg
20' (6.1 m)					*2,470	*2,470			*6,670	*6,670	lb kg
15' (4.6 m)					*3,210	*3,210	*7,080	*7,080	*7,350	*7,350	lb kg
10' (3.0 m)			*13,950	*13,950	*10,260	*10,260	*8,850	*8,850	*8,640	*6,710	lb kg
5' (1.5 m)			*6,320	*6,320	*4,650	*4,650	*4,010	*4,010	*3,920	*3,040	lb kg
Ground Level			*22,820	*22,820	*13,920	12,870	*10,650	8,180	*8,190	5,680	lb kg
-5' (-1.5 m)	*14,490	*14,490	*10,340	*10,340	*6,310	5,830	*4,830	3,710	*3,710	2,570	lb kg
-10' (-3.0 m)	*21,900	*21,900	*22,340	*22,340	*16,700	12,160	*12,190	7,820	*7,910	5,510	lb kg
-15' (-4.6 m)	*9,930	*9,930	*10,130	*10,130	*7,570	5,510	*5,520	3,540	*3,580	2,500	lb kg
	*32,210	*32,210	*21,810	*21,810	*14,190	12,380					
	*14,600	*14,600	*9,890	*9,890	*6,430	5,610					

LIFTING CAPACITIES

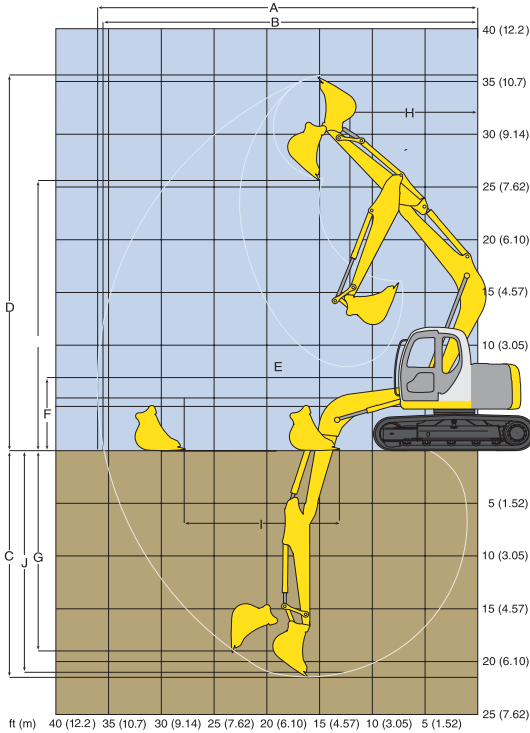
Shoe: 31.5" (800 mm) triple grouser

200SR _{LC} Boom 16' 7" Arm: 8' 6" (2.6 m) Bucket: 0.98 cu yd (0.75 m ³) SAE heaped - 1,390 lb (630 kg)											
A	5' (1.5 m)		10' (3.0 m)		15' (4.6 m)		20' (6.1 m)		25' (7.6 m)		
B	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	Over Front	Over Side/360°	C
25' (7.6 m)					*6,780	*6,780					lb kg
20' (6.1 m)					*3,080	*3,080			*6,180	*6,180	lb kg
15' (4.6 m)					*6,500	*6,500	*2,950	*2,950	*2,800	*2,800	lb kg
10' (3.0 m)			*8,230	*8,230	*8,230	*8,230	*3,730	*3,730	*3,690	*3,810	lb kg
5' (1.5 m)			*16,560	*16,560	*11,410	*11,410	*9,580	7,590	*4,330	*4,330	lb kg
Ground Level	*8,870	*8,870	*7,500	*7,500	*5,170	*5,170	*4,330	3,440	*1,960	*1,960	lb kg
-5' (-1.5 m)	*4,020	*4,020	*24,480	21,970	*14,890	11,340	*11,240	7,180	*5,710	4,940	lb kg
-10' (-3.0 m)	*8,870	*8,870	*11,070	9,880	*8,750	5,140	*5,140	3,250	*2,590	2,240	lb kg
-15' (-4.6 m)	*16,210	*16,210	*9,960	9,530	*7,850	4,870	*5,830	3,110			lb kg
	*7,350	*7,350	*12,770	9,500	*8,230	4,760	5,570	3,060			lb kg
	*24,500	*24,500	*25,790	21,340	*17,140	10,670					lb kg
	*11,110	*11,110	*11,690	9,880	*7,770	4,840					lb kg
	*34,510	*34,510	*19,740	*19,740							
	*15,650	*15,650	*8,950	*8,950							

Notes:

- 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.
- 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 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.
- 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.
- Capacities apply only to the machine as originally manufactured and normally equipped by KOBELCO Construction Machinery America LLC.

200SR_{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)

ATTACHMENTS	8' 6" (2.6)	9' 10" (3.0)
a Max digging reach	29' 6" (9.00)	30' 9" (9.38)
b Max digging reach at ground level	28' 10" (8.80)	30' 2" (9.19)
c Max digging depth*	20' 2" (6.15)	21' 6" (6.55)
d Max digging height*	33' 7" (10.23)	34' 7" (10.53)
e Max dumping clearance*	24' 2" (7.36)	25' 2" (7.66)
f Min dumping clearance*	9' 5" (2.88)	8' 5" (2.57)
g Max vertical wall digging depth*	17' 9" (5.40)	19' 0" (5.80)
h Min front swing radius	7' 10" (2.38)	8' 11" (2.73)
i Horizontal digging stroke at ground level	14' 6" (4.43)	15' 10" (4.82)
j Digging depth for 8' (2.4 m) flat bottom	19' 5" (6.85)	20' 10" (6.36)

DIGGING FORCE

Unit: lb (kg)

	8' 6" (2.6 m) Arm		9' 10" (3.0 m) Arm	
	SAE	ISO	SAE	ISO
Bucket digging force	24,900 (11,295)	27,805 (12,610)	24,900 (11,295)	27,805 (12,610)
Arm crowding force	19,050 (8,640)	19,707 (8,937)	17,700 (8,030)	18,310 (8,304)

PERFORMANCE

Bucket capacity (SAE heaped)	0.88-1.25 yd ³ (0.67-0.96m ³)
Travel speed	3.1/2.2 mph (5.0/3.5 km/h)
Swing speed	11.0 rpm
Gradeability	35° (70%)
Drawbar pulling force	44,775 lbs (20,310 kg)

REFILLING CAPACITIES

Unit: US gal (liters)

Fuel tank	71.3 (270)
Hydraulic capacity: system/tank	56.8/44.1 (215/167)
Cooling system	4.9 (18.5)
Engine oil pan	3.4 (13)
Travel reduction unit	2 x 1.45 (2 x 5.5)
Swing reduction unit	2.0 (7.5)
Swing gear grease bath	2.19 (8.3)

SPECIFICATION SUMMARY

GENERAL		
Operating weight with Bucket	lb (kg)	48,500 (22,000)
Bucket Capacity Range	cu yd (m ³)	0.88-1.25 (.67-0.96)
ENGINE		
Make and Model	Isuzu	AA-4BG1TC
Displacement	cu in (L)	264 (4.33)
Bore and Stroke	in (mm)	4.13"x4.92" (105x125)
Horsepower SAE NET	HP(kW)@RPM	123 (91.9) @ 2,200
WORKING RANGES (Std. Arm)		
Standard Arm	ft-in (m)	9' 10" (3.0)
Bucket Digging Force	lb (kg)	24,900 (11,295)
Arm Digging Force	lb (kg)	17,700 (8,030)
Ground Level Reach	ft-in (m)	30' 2" (9.19)
Max. Digging Depth	ft-in (m)	21' 6" (6.55)
Max. Dumping Height	ft-in (m)	25' 2" (7.66)
Max. Vertical Wall Digging Depth	ft-in (m)	19' 0" (5.80)
Max. Lift Capacity-Side	lb (kg)	7,820 (3,540)
@ 20' Radius & Ground Level-Front	lb (kg)	12,190 (5,520)
HYDRAULIC SYSTEM		
Hydraulic Pump	No & type	2VP+1FG
Rated Oil Flow	gpm (L/m)	2x46.5+5 (2x176+19)
Operating Pressure Implement	psi (MPa)	4,980 (34.3)

Travel	psi (MPa)	5,190 (35.8)
Swing	psi (MPa)	4,060 (28.0)
Power boost/heavy lift	psi (MPa)	5,470 (37.8)
UNDERCARRIAGE		
Track Overall Length	ft-in (m)	14' 7" (4.45)
Track Overall Width w/Std. Shoe	ft-in (m)	10' 6" (3.19)
Track Shoe	in (mm)	31.5" (800)
Travel Speed	mph (km/h)	3.1/2.2 (5.0/3.5)
Drawbar Pull	lb (kg)	44,775 (20,310)
Ground Bearing Pressure	psi (kPa)	4.93 (34)
Ground Clearance	in (mm)	17.7" (450)
SWING		
Swing Speed	rpm	11
Tail Swing Radius	ft-in (m)	5' 6" (1.68)
SHIPPING DIMENSIONS		
Height	ft-in (m)	10' 0" (3.06)
Width w/Std. Shoe	ft-in (m)	10' 6" (3.19)
Length	ft-in (m)	26' 10" (8.18)
REFILL CAPACITIES		
Fuel Tank	gal (L)	71.3 (270)
Hydraulic Reservoir	gal (L)	44.1 (167)

STANDARD EQUIPMENT

- AM/FM Radio
- Arm: 9' 10" (2.6 m)
- Audible warning system for high coolant temperature, low engine oil pressure, clogged air filter and oil replacement interval. Automatic engine deceleration
- Boom: 16' 7" (5.05 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
- Counterweight - North America heavy configuration
- Electric horn
- Electronic - hydraulic system pressure release
- Engine automatically idles down for low oil pressure
- Heavy duty batteries (2 x 12 volt-115AH)
- Heavy Lift
- Hydraulic oil cooler
- Hydraulic track adjusters
- Isuzu engine, model AA-4BG1TC
- 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

- water temperature level gauges, 2-speed travel and swing release indicators
- Power Boost
- 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: 31.5" (800 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
- Work lights—two front

OPTIONAL EQUIPMENT

- Arm: 8' 6" (2.6 m) arm with rock guard
- Auxiliary hydraulics—1-way and 2-way flow with piping to the end of standard arm with foot or hand controls
- Belly pan guard
- Boom & arm load (lock) holding valve
- Control pattern changer (ISO/BHL)
- High and wide undercarriage
- Hydraulic quick coupler
- Large selection of buckets
- Rotation (low flow) with hand control with piping
- Vandalism guards

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

KOBELCO®

Your competitive edge.

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