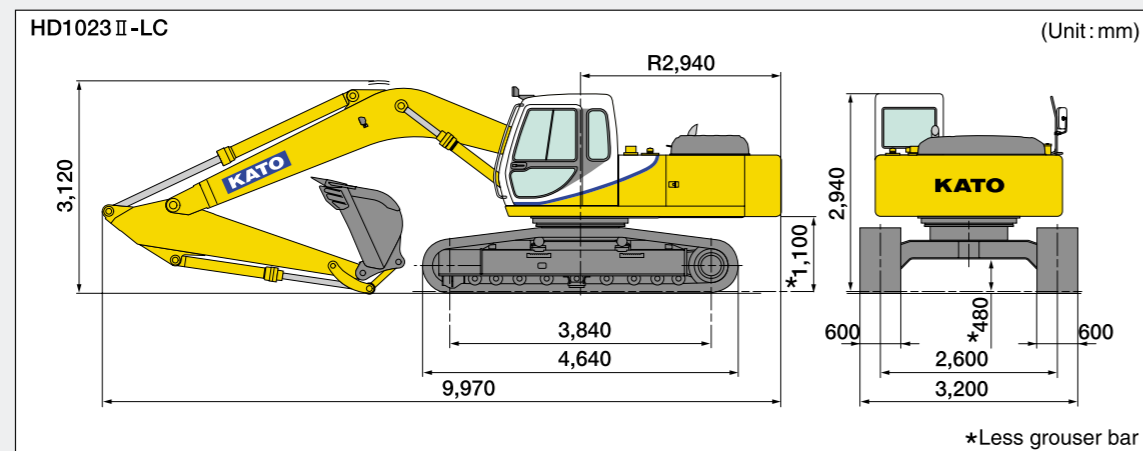
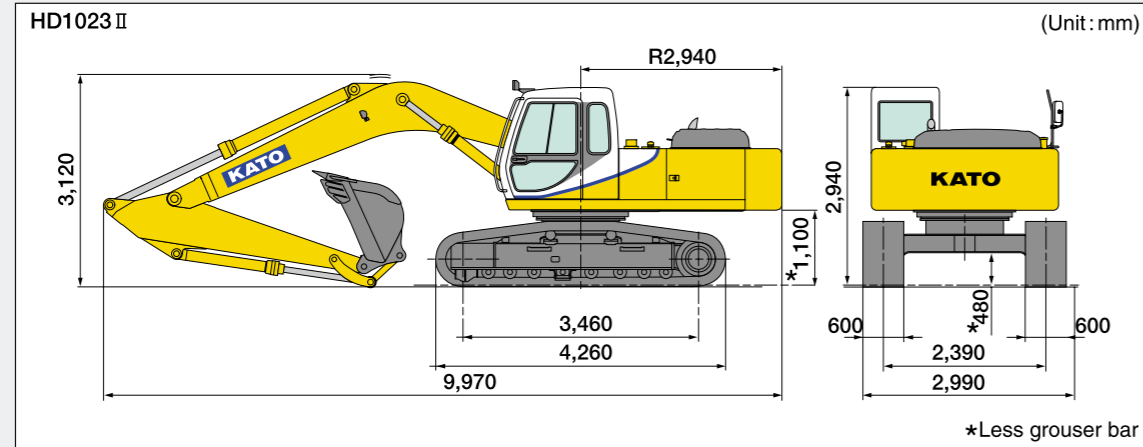


**SUPER EXCEED**

**HD1023II**

**Dimensions**



**KATO**

FULLY HYDRAULIC EXCAVATOR

**SUPER EXCEED**  
**HD1023II / HD1023II-LC**  
*Special*



Address inquiries to :

• NOTE : Illustrations may include optional equipment. KATO products and specifications are subject to improvements and changes without notice.

**KATO**

QUALITY & EXPERIENCE  
 SINCE 1895



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Bucket capacity : 0.55m<sup>3</sup> - 1.5m<sup>3</sup> (ISO)  
 Engine output : 125kW/2,150min<sup>-1</sup> (170PS/2,150rpm) (ISO, Net)  
 Operating weight : 23,000kg (HD1023II)/23,600kg (HD1023II-LC)

# The HD1023II excavator boldly debuts, boasting significant new advances!

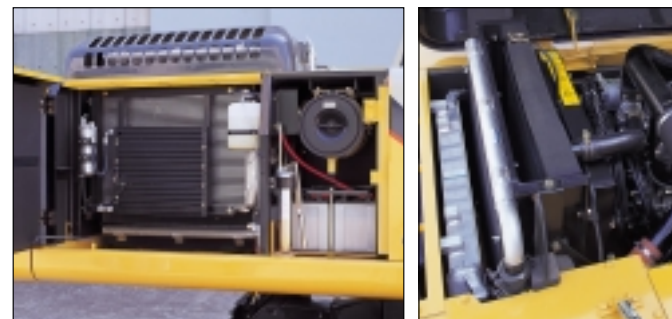


# Technical Specifications (HD1023II/HD1023II-LC)



## ENGINE

Model.....Mitsubishi 6D34-TL, 4 cycle intercooler turbo charged diesel engine  
 Number of cylinders.....6  
 Bore & Stroke.....104mm × 115mm  
 Total displacement.....5.86 L  
 Rated output.....125kW/2,150min<sup>-1</sup> (170PS/2,150rpm)  
 (ISO, Net)  
 Max. torque.....598N·m/1,600min<sup>-1</sup> (61kgf·m/1,600rpm)  
 (ISO, Net)  
 Compression ratio.....18.2:1  
 Combustion system.....Direct injection  
 Specific fuel consumption.....220g/kW-hour  
 (162g/PS-hour)  
 Cooling system.....Pressurized water circulated by a centrifugal pump with thermostat  
 Lubrication system.....Pressurized oil fed by a gear pump through full-flow and by-pass cartridge filter  
 Starter.....Electric, 24V-5kW  
 Generator.....Alternator, 24V-35A  
 Governor.....Mechanical  
 Air cleaner.....Dry type filter



●Radiator with dust screen ●Intercooler, Oil cooler, Radiator



## SWING SYSTEM

The hydraulic gear-driven swing is powered by an axial piston motor with shockless valve that is flange-connected to a planetary reduction unit. It rotates 360° continuously on the single row-ball bearing that has an integral, internally cut swing gear, and is totally enclosed to prevent the ingress of mud and water.

Brake.....A hydraulic brake that locks automatically when the swing control lever is in the neutral position and a mechanical parking brake which is applied when the safety lock lever is pulled backwards, the engine is turned off or the swing control lever is in the neutral position.

Lubrication.....Completely housed and grease bathed  
 Max. swing speed.....11.0min<sup>-1</sup>(11.0rpm)  
 Tail swing radius.....2,940mm  
 Min. front swing radius.....3,880mm



## TRAVEL SYSTEM

Spring-applied idlers protect the drives from shock. Adjust cylinder is provided for easy arrangement of the track tensioning. An all welded undercarriage frame gives clog-free clearance, and the drive motors are neatly housed inside the track frame. The crawler tracks with interchangeable shoes are supported by 8 lower rollers (9 lower rollers for HD1023 II-LC), 2 upper rollers and a guard plate on each side.  
 Traveling motors.....Independent axial piston motor with reduction for each side  
 Brakes.....Independent disk parking brake for each side, applied automatically when the travel levers are in the neutral position.  
 Track shoes.....47 each side HD1023 II  
 51 each side HD1023 II-LC  
 Track adjustment.....Grease cylinders with recoil springs  
 Lubrication.....Sealed-for-life rollers and front idlers with floating seals  
 Travel speed.....High 0~5.5km/h  
 Medium 0~3.9km/h  
 Low 0~2.7km/h  
 Gradeability.....70% (35°)  
 Max. drawbar pull.....186.3kN (19,000kgf)  
 Ground clearance (less grouser bar).....480mm  
 Track length.....4,260mm HD1023 II  
 4,640mm HD1023 II-LC



●Traveling motor with reduction



## BOOM, ARM AND BUCKET

The boom and arm are of all-welded, steel box section type with reinforced pin joints. Bucket is fabricated from high tensile strength steel.

Boom cylinders.....Two, double acting  
 Bore & Stroke.....140mm × 1,370mm  
 Arm cylinder.....One, double acting  
 Bore & Stroke.....150mm × 1,680mm  
 Bucket cylinder.....One, double acting  
 Bore & Stroke.....130mm × 1,155mm  
 Lubrication.....Grease nipples, with centralized greasing for remote points  
 Bucket digging force.....167kN (17,000kgf)  
 (High power).....174kN (17,800kgf)  
 Arm digging force.....120kN (12,200kgf)  
 (High power).....126kN (12,900kgf)  
 (High power can be used with STD arm and short arm)



## HYDRAULIC SYSTEM

Two pumps are controlled by the Kato developed "APC" ( Automatic Power Control ) system, which senses where power is needed and automatically adjusts the pressure and flow-rate of the pump to match the work load. New "APC" system enables pump output to be utilized to the full with minimum fuel consumption. The adoption of joint circuit enables dual speed for boom derricking and arm extension/ retraction.

Pumps.....Variable double piston pump and gear pump  
 Max. discharge flow.....2×247 L/min<sup>-1</sup>  
 Max. discharge pressure.....31.4MPa (320kgf/cm<sup>2</sup>)  
 Max. discharge pressure (travel circuit only).....32.9MPa (335kgf/cm<sup>2</sup>)

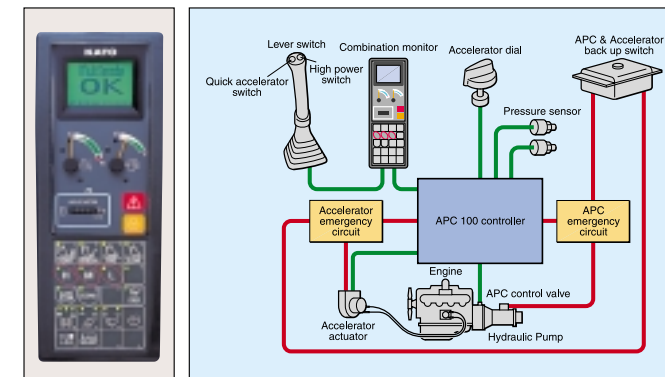
Oil filtration.....Full-flow filter with replaceable element, a drain cartridge filter, a pilot line filter and a suction strainer

Control valves.....5+4 section multiple control valves (with one free service circuit)

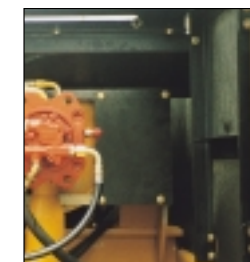
Pilot pump.....Gear type

Oil cooler.....Finned tube, forced ventilation

Pressure relief valves.....Primary and secondary on each circuit



●Combination monitor ●APC system



●Fire wall



●Air conditioner control panel (option)



## REFILLING CAPACITY

Fuel tank.....380 L  
 Cooling system.....25.5L  
 Engine oil.....22 L  
 Track drives.....2×3.3 L  
 Swing drive.....11.3 L  
 Hydraulic oil tank (level).....165 L  
 (system).....290 L



## CAB & CONTROLS

The all-weather sound suppressed, 1,000mm wide pressed steel cab is six point viscous mounted and has plenty of leg room. All windows are made of tinted safety glass. The front window can be raised and slide back so that it fits flush with the ceiling to provide improved visibility and ventilation. The cloth-covered, fully adjustable seat is provided. Operating conditions can be seen at a glance on safety monitor.

Right hand lever.....Controls the boom & bucket  
 Inner right hand lever (with foot pedal).....Controls the right hand track

Inner left hand drive (with foot pedal).....Controls the left hand track

Left hand lever.....Controls the arm & swing

Pilot control.....Travel, boom, arm, bucket and swing

Engine throttle.....Electric "Accel dial"

Meter & gauges.....Hour meter, water temperature and fuel level

Monitor display.....Engine oil pressure, engine oil filter, hydraulic oil filter, hydraulic oil temperature, water temperature, water level, fuel level, battery charge, APC monitor and air cleaner.

Indicator lamps.....Caution lamp & Engine preheater indicator lamp

Working lights.....Provided on the boom left side and mounted on the frame

Lubrication chart.....Inside the tool box



## WEIGHT

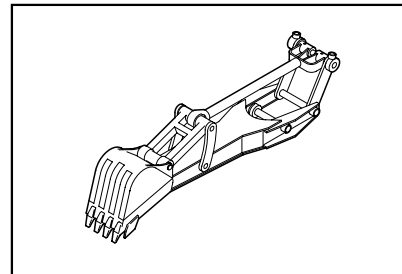
In standard figure, with the 2.96m arm, 600mm grouser shoes and 1.0m<sup>3</sup> (ISO) bucket.

Operating weight.....23,000kg:HD1023 II  
 23,600kg:HD1023 II-LC

Ground pressure.....50.0kPa (0.51kgf/cm<sup>2</sup>):HD1023 II  
 47.1kPa (0.48kgf/cm<sup>2</sup>):HD1023 II-LC

# Working Ranges (HD1023II/HD1023II-LC)

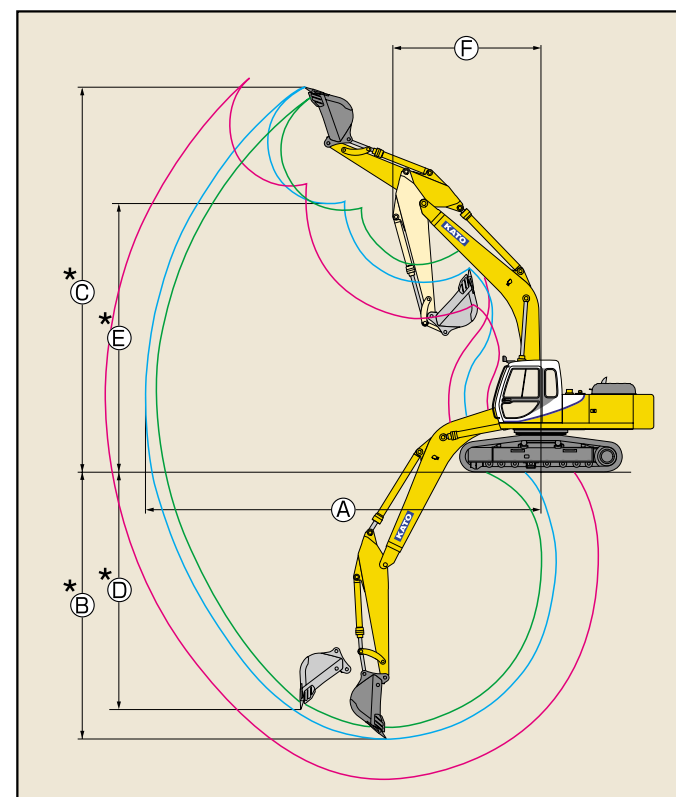
## Extension Arm



(Unit : mm)

Range	Arm	Short Arm (2.47m)	STD Arm (2.96m)	Long Arm (3.95m)
Ⓐ-Max. digging radius		9,910	10,350	11,260
*Ⓑ-Max. digging depth		6,520	7,010	8,010
*Ⓒ-Max. digging height		9,880	10,060	10,500
*Ⓓ-Max. vertical wall		5,750	6,250	7,190
*Ⓔ-Max. dumping height		6,810	6,990	7,440
Ⓕ-Min. swing radius		4,010	3,880	3,800

\*Less grouser bar.



## Bucket

Type of bucket		Backhoe bucket							Dredging bucket	Slope forming bucket	Rock bucket	Ripper
Bucket capacity	m <sup>3</sup> , ISO	0.55	0.8	1.0	1.1	1.3	1.4	1.5	0.65	—	0.7	—
Bucket width	w/o side cutters, mm	800	950	1,170	1,220	1,400	1,490	1,580	2,400 1,250	2,000 1,250	760	—
	with side cutters, mm	915	1,065	1,285	1,335	1,515	1,605	—	—	—	—	—
Bucket weight	kg	580	725	850	870	950	990	1,030	770	990	995	380
Number of bucket teeth		4	4	5	5	5	5	5	2	—	5	1
Shape of bucket												
Standard boom +	Short arm	●	●	●	●	▲	▲	□	●	○	○	○
	Standard arm	●	●	●	▲ [●]	▲	□	×	●	○	○	○
	Long arm	●	●	▲	□	×	×	×	▲	○	×	×
	Extension arm	●	▲	×	×	×	×	×	×	×	×	×

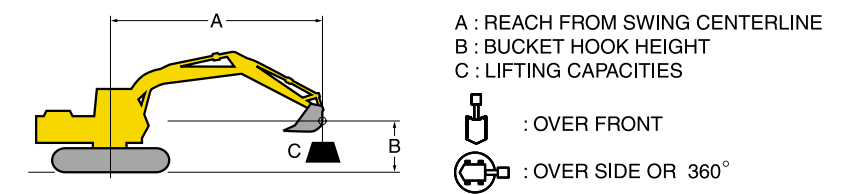
● General purpose ▲ Light work ○ Rock digging □ Loading ○ Usable × Unusable [ ] : HD-1023II-LC

## Track Shoes

Type of shoes	Grouser shoe			Flat shoe	Triangle shoe	
Shoe width mm	HD-1023 II	600	700	800	600	800
	HD-1023 II-LC	600	700	800	600	800
Overall width mm	HD-1023 II	2,990	3,090	3,190	2,990	3,190
	HD-1023 II-LC	3,200	3,300	3,400	3,200	3,400
Ground pressure kPa (kgf/cm <sup>2</sup> )	HD-1023 II	50.0 (0.51)	43.0 (0.44)	38.0 (0.39)	52.0 (0.53)	39.5 (0.4)
	HD-1023 II-LC	47.0 (0.48)	40.0 (0.41)	36.5 (0.37)	48.0 (0.49)	36.5 (0.37)
Net weight change kg	HD-1023 II	S.T.D.	+280	+540	+720	+1,290
	HD-1023 II-LC	S.T.D.	+300	+590	+780	+1,400

● Yellow colored area means standard.

# Lifting Capacities (HD1023II/HD1023II-LC)



HD1023II 600mm Shoe, 5.87m Boom, 2.96m Arm, 1.0m<sup>3</sup> Bucket (850kg) Unit: 1,000kg

LOAD POINT HEIGHT B (m)	LOAD RADIUS A (m)														MAXIMUM LOAD RADIUS					
	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	m
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HD1023II-LC 600mm Shoe, 5.87m Boom, 2.96m Arm, 1.1m<sup>3</sup> Bucket (870kg) Unit: 1,000kg

LOAD POINT HEIGHT B (m)	LOAD RADIUS A (m)														MAXIMUM LOAD RADIUS					
	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	m
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NOTE : 1. Lifting capacities are based on ISO 10567.  
2. Lifting capacities shown do not exceed 87% of machine hydraulic capacity or 75% of minimum tipping load.  
3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.  
4. Lifting capacities are based on machine standing on firm, uniform supporting surface. User must make allowances for job conditions such as soft or uneven ground.  
5. Lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities.  
6. Capacities apply only to the machine as originally manufactured and equipped by KATO WORKS CO., LTD.

## Standard Equipment

- New APC mode
- New auto-slow · One-touch-slow
- Multi-mode display monitor
- Adjustable monitor alarm
- 2 service hour meter
- 3 traveling mode
- Automatic travel speed change
- Spring assisted pull-up front window
- 6 points viscous damping cab suspension
- Multi position operator's seat
- Adjustable seat suspension
- Adjustable speed window wiper
- Rear emergency escape window
- Cabin light connected to cabin door
- 2 working lights (Upper front right side & Boom left side)
- Boom holding valve
- Arm holding valve
- Digging force booster (High power)

## Optional Equipment

- Swing shockless valve
- Automatic swing parking brake
- Automatic travel parking brake
- One free service circuit for attachments
- Rear view mirror (right side)
- Track guard, 1 pc each side
- Front window washer (2 sprays)
- Tinted transparent hatch
- Seat belt
- Automatic climate control air conditioner
- Hot & cool box contained with AC
- Cabin heater
- Auto tuning AM/FM radio with clock
- 2 speaker stereo
- Working light (Cab left side)
- Working light (Boom right side)
- Working light (Cab right side)
- Cab access step
- Optional piping
- Cab front half guard
- Cab front full guard
- Cab head guard
- Electronic horn
- Cabin fan
- Swing warning light
- Travel alarm
- Refueling pump
- Air cleaner, double element
- Low temperature spec
- Tool set
- Track guard, 3 pcs each side