System

Bucket capacity

Number of bucket teeth

Shape of bucket

Bucket width

STANDARD AND OPTINAL EQUIPMENTS

Safety equipments	STD	LC
ISO12117-2 (Fops top guard ISO 10262 LEVEL I)	0	0
Safety lock lever	0	0
Seat-belt Seat-belt	0	0
Emergency engine stop switch	0	0
Emergency escape hammer	0	0
Rear view mirror (light&left side)	0	0
Rear view camera	0	0
Side view camara	•	•
Working light (slewing table right side,boom left side)	0	0
Optional working light (cab left and right side)	•	•
Optional working light (boom right side)	•	•
LED working lights	•	•
Boom/arm anti-drift valve	0	0
Slewing anti-counter action	0	0
Automatic parking brake (slewing table)	0	0
Automatic parking brake (traveling)	0	0
Fire wall	0	0
Falling prevention handrail	0	0
Battery disconnect switch	0	0
Caution indication	0	0
Cabin lower guard	•	•
Cabin front guard	•	•
Cabin head guard	•	•
Step on side of cab	•	•
Fire extinguisher	•	•
Additional electric horn	•	•
Traveling alarm	•	•
Swing interlocking warning lamp	•	•
Loud speaker	•	•

Cabin	STD	LC
6 points viscous dumpling cab suspension	0	0
Pull up front window	0	0
7 inch touch screen control LCD monitor	0	0
Double slide operator seat	0	0
Seat suspension adjustable to operator's weight	0	0
Automatic air conditioner (pressurized)	0	0
Defroster	0	0
Large capacity heat & cold insulation box	0	0
Intermitted windshield wiper	0	0
AM/FM radio	0	0
Two stereo speakers	0	0
LED interior light	0	0
Cup holder	0	0
Helmet hook	0	0
24V electric supply port	0	0
Transparent roof hatch with sun visor	•	•
Sun shade	•	•
Sun visor	•	•
Rain visor	•	•
Ash tray (with cup holder)	•	•
12V electric supply port	•	•
USB port (x2)	•	•
Seat cover	•	•
Piping and other	STD	LC_

Working	equipments	STD	LC
	0.45m³ bucket	•	•
	0.55m³ bucket	•	•
	0.80m³bucket	0	0
	0.90m³bucket	•	•
Bucket	1.00m³bucket	•	•
	1.10m³ bucket	•	•
	0.80m3 reinforced bucket	•	•
	0.90m3 reinforced bucket	•	•
ırm	Arm (2.93m)	0	0
uiii	Arm (3.92m)	•	•
	Various type of reinforced arm	•	•
oom	Standard boom (5.63m)	0	0
OOIII	Reinforced boom (5.63m)	•	•
	Bracket on boom for small swing radius (5.63m)	•	•
ink	Standard side link	0	0
	Reinforced side link	•	•
Traveling	ı equipments	STD	LC
rouser shoe	600mm	0	0
ouser SHOE	700mm	•	•
	800mm	•	•
	900mm	•	•
ver on the	bottom face of traveling frame	0	0

2 speed modes for traveling	0	0
Automatic transmission for traveling	0	0
Auto-slow, one touch slow	0	0
	0	0
Front attachment mode		

m³, ISO

Type of bucket

W/O side cutters, mm

Standard arm (2.93m) Long arm (3.92m)

Piping and other	STD	LC
Service port (1 spool)	0	0
High performance filter	•	•
Additional piping for breaker & crusher (with electric control selector valve)	•	•
Additional piping (for crusher)	•	•
Additional piping (for rotator)	•	•
Control pattern change valve.(ISO-SAE)	•	•
Air cleaner double element	0	0
Under cover slewing table (reinforced)	•	•
Electric refueling pump	•	•
Specification for cold region	•	•
Designated paint	•	•
Tool set	0	0

1.00

1,270

1,380 6

 \blacktriangle

1.10

1,400

High performance filter	•	•
Additional piping for breaker & crusher (with electric control selector valve)	•	•
Additional piping (for crusher)	•	•
Additional piping (for rotator)	•	•
Control pattern change valve.(ISO-SAE)	•	•
Air cleaner double element	0	0
Under cover slewing table (reinforced)	•	•
Electric refueling pump	•	•
Specification for cold region	•	•
Designated paint	•	•

TRACK	SHOES

Traveling motor cover (reinforced Track guard 1 pc each side 2 pcs each side

				Grouser shoe		
	Type of shoes					
	Shoe width	mm	600	700	800	900
Specifications for main body	Operating weight kg Distance between shoe edge of both side mm		23,000 [23,700]	23,400 [24,000]	23,700 [24,300]	23,900 [24,600]
			2,820 [2,990]	2,920 [3,090]	3,020 [3,190]	3,120 [3,290]
	Ground	kPa	51 [49]	45 [43]	40 [38]	36 [34]
	pressure	kgf/cm ²	0.52 [0.50]	0.46 [0.43]	0.40 [0.38]	0.36 [0.34]

● General purpose ▲ Light work □ Loading × Unusable [] HD823MRLC-7 ○ Pink colored area means standard.

Ground pressure when equip standard bucket and arm. [] HD823MRLC-7 Pink colored area means standard.

http://www.kato-works.co.jp

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

Backhoe bucket

0.90

1,190

1,300

0.80

1,020

1,130

0.55

800

910

0.45

760

Contact for enquiry:



SINCE 1895

KATO WORKS CO.,LTD.

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High performance & Environment friendly KATO compact tail ex cavator



High productivity and comfort operability

High performance and environment-friendly Isuzu engine



Selective Catalytic Reduction (SCR) system

The SCR system cuts the NOx (nitrogen oxides), PM (particulate matter) and NMHC (non-methane hydrocarbon). The emission control is compliant with Stage4 and Tier4.

EGR (Exhaust Gas Recirculation) system

The large capacity water-cooled EGR cooler suppresses the NOx.

Digging force

Max. bucket digging force	
at high power	-159 kN
Max. arm digging force	
at high power	-115 _{kN}

Working range

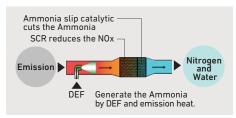
Max. digging radius	9,930 _{mn}
Max. digging depth	6,690 _{mn}
Max. digging depth	5,2 60mn
Max. digging height (STD position)	9,840 mn
Max. digging heigh (optional small swing position)	11,330 _{mn}

Selective Catalytic Reduction (SCR) system

The SCR system provides chemical reaction between Urea and NOx in emission. This reaction generates Nitrogen and Water which are friendly to environment.

The large capacity DEF (Desel Exhaust Fluid) tank

DEF replenishment is every 1 time per 3 times of fuel replenishment (subject to working condition).



Cycle time is increased by Compared with HD823MR-6 at P mode

New hydraulic system design

New control valve

The internal mechanism of the control valve has been facilitated. It reduces the pressure loss and supports the low fuel consumption operation. The additional valve can be attached and optional operations are avail-



New main pump

The new main pump reduces the fuel consumption. The PTO pump can be installed which allows optional opera-



Large size hydraulic hose and pipe

The hose and pipe of the boom and arm cylinders have increased. It reduces pressure loss and increases the productivity.



Smooth operation

The operation burden has decreased by approximately 25% and easy to operate.

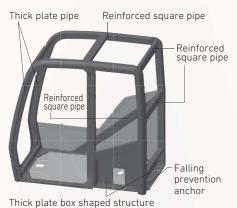






Safer cab with various features

The KATO original cabin is durable and smart design. The cabin is compliant with ROPS direction (ISO12117-2). It secures the safety and protection of the operator from roll-over accident. The cabin is also compliant with ISO 10262 (Top guard level I) and protect the operator from falling objects.





Window and rise up wiper

The large size right window and the rise up wiper secure excellent view. The wiper is storable to the right pillar.



Safety lock lever

The new electronic control lock mechanism enhances safety and prevents miss operation. It locks the hydraulic circuit in case the console is jumped up. The engine start operation is active only when the lever is applied to lock position.

Other safe features

- Rear view camera
- Side view camera (option)
- Emergency escape hammer
 LED working light (option)
- Fire proof wall
- Fan guard
- Emergency engine stop switch
 Retractable side mirror

 - Fire extinguisher (option)



Polycarbonate door window

Polycarbonate prevents the crack arise from scattering stone. Hard coating secures high resistance to yellowing or scratch of surface.



Handrail and step

To prevent falling accident, the handrail has been provided to the upper structure. The large size anti-slip step enables operator to access the upper structure safer.



Best comfort and high efficiency



Heat&cold insulation box

It is capable to store 6 drink bottles (500ml).



New operation lever

Operation switches are arranged to up and bottom. Round shape grip is easy to control.



Rear stowage space

It is capable to stow objects such as 2l size drink bottle.



Cabin pressurization

It prevents dust by enhancing the airtightness.



Air volume is increased by 26%

Paper type filter

New foot rest arrangement

The foot rest has been relocated to optimum position. Replacement of the floor mat has become easier.



Drink holder

Soft material is used for the drink holder. Various arrangements are available.



Other cabin features

- Seat suspension with large size shock absorber
- Luggage space
- Helmet hook
- AM/FM radio with 2 speakers
- USB port (option)
- 12V electric port (option)
- Ash tray (option)
- Sun visor (option)
- Rain visor (option)
- Transparent roof hatch (option)





USB port (option)



New APC for smart operation



Visibility

Large and high resolution display

The display is 7 inch size and IPS liquid crystal display provides high quality image.

Safety

Rear view camera for standard feature

Operator is able to confirm rear and side view through dual view display (side view camera is option).



It indicates rear and side view at the same time.

Operability Touch screen control is available for all operation.



Mode selection

Pull-down menu enables operator to confirm all mode on the display at once.



Air conditioner

The air conditioner operation is available on the display.



Alarm message

The display indicates various alarms. It also indicates the DEF aqueous fluid replenishing timing.



Various information

Operator is able to set up to display various information such as maintenance information.



High performance and superior maintenance



Facilitated the lavout

The electronic items and air cleaner are located in the rear cabin compartment. It has facilitated and become compact.



Filters

The filters are concentrated on the right-rear location which is easy to access. The cartridge type main fuel filter is easy to replace.



Greasing port

It adopts greasing port for the slewing motor. The greasing port location is easy to access.



Cabin maintenance space

It is able to replace the filter for the air conditioner and replenish the washer fluid from the cab maintenance space which is located outside of the cab.



High performance

The new dimple design bush keeps the grease longer than before. It has been provided to boom foot, arm foot and arm top.



Tool box

The tool box for daily maintenance.





Cooling system

The expansion tank has been installed to the radiator top. It increases air breeding performance and cooling performance.



DEF tank

The DEF tank is easy to access.



Battery disconnect switch

It is capable to shut down the battery completely in non-operation state. The maintenance of electronic devices becomes safer.

Technical Specifications

ENGINE

Model· ISUZU4HK1X 4 cycle intercooler turbo charged diesel engine Number of cylinders.... Bore & Stroke 115 mm × 125 mm Total displacement Rated output······ 128.4kW/2,000min-1 (ISO 14396) 120.5kW/2.000min⁻¹ (ISO 9249 Net) 670N·m/1,600min⁻¹ Max. torque (ISO 14396) 646N·m/1,600min⁻¹ (ISO 9249 Net) Compression ratio-Combustion system Direct injection Cooling system ····· · Pressurized water circulated by a Impeller type pump with thermostat Lubrication system ····· Pressurized oil fed by a gear pump through full-flow and by-pass cartridge filter ·· Electric, 24V-5.0kW

Air cleaner ... Double element Dry type filter

Generator:

HYDRAULIC SYSTEM

Pumps····· Double variable piston pump
and gear pump
Max. discharge flow····· 2×248L/min
Max. discharge pressure 34.3MPa
Max. discharge pressure
(high power) ······36.3MPa
Oil filtration Full-flow filter with
replaceable element,
a pilot line filter and
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

SWING SYSTEM

Drive... Axial piston motor with shockless valve and reduction gear. 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....

TRAVEL SYSTEM

Drive 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····· 46 each side
49 each side (LC)
Track adjustment······ Grease cylinders
with recoil springs
Lubrication Sealed-for-life rollers and
front idlers with floating seals
Travel speed······ High 0∼5.9km/h
Low 0~3.9km/h
Gradeability70% (35°)
Max.drawbar pull······184 kN

Bucket digging force····· 150kN
at high power · · · · · 159kN
Arm (2.93m) digging force······ 109kN
at high power · · · · · 115kN

Fuel tank325 L
Cooling system····· 40 L
Engine oil 26 L
DEF tank
capacity55 L
replenishment······46 L
Track drives2×5.0 L
Hydraulic oil tank
$level \cdots \cdots 150L$
system 270 L
In standard figure, with the 2.93 m arm,
600mm grouser shoes and 0.80m³ (ISO)
bucket.
Operating weight·····23,000 kg
Ground pressure $\cdots\cdots$ 51 kPa

CAB&CONTROLS

ependent axial piston motor	Type······All weather sound suppresse
reduction for each side	cab mounted on 6 point
ependent disk parking brake	viscous mounting.
each side, applied	Right hand levers Controls the boom
omatically when the travel	buck
ers are in the neutral position.	Inner right hand lever
···· 46 each side	(with foot pedal) Controls the rig
49 each side (LC)	hand tra
ent····· Grease cylinders	Inner left hand lever
with recoil springs	(with foot pedal) ······ Controls the left had
Sealed-for-life rollers and	tra
front idlers with floating seals	Left hand lever ··· Controls the arm & swin
····· High 0∼5.9km/h	Pilot control·····Travel, boom, arm, buck
Low 0~3.9km/h	and swii
·····70% (35°)	Engine throttle Electric "Accell dial
pu∥······184 kN	Meter & gauges ······ Hour meter, water
	temperature, DEF

DIGGING FORCE (ISO 6015)

Bucket digging force······ 150kN
at high power · · · · · 159kN
Arm (2.93m) digging force······ 109kN
at high power · · · · · 115kN

SERVICE DATA

and fuel level Working lights... ·· Provided on the boom left side and right

Lubrication chart.....Inside of the right front side cover

Quick Selection of Working Modes...

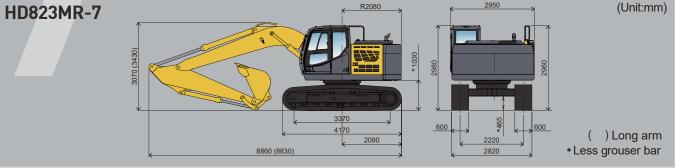
- P: Professional mode for experienced operator. Established both power and good response
- A: All-round Multi Purpose Mode for all application from precision work to heavy duty work by stroke of operation levers
- E: ECO Mode for economical works
- Color monitor display with touch screen Rear / side View monitor

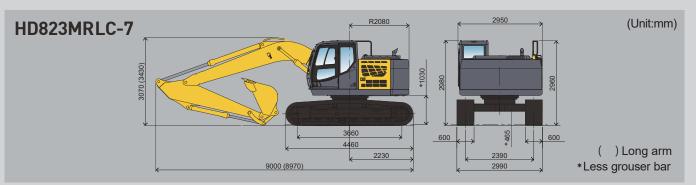
AIR CONDITIONER

Air conditioner gas contains fluorinated greenhouse gases. Industrial designation · Quantity · · CO2 equivalent ····· Global warming potential (GWP)······1430

Dimensions

Alternator, 24V-50A

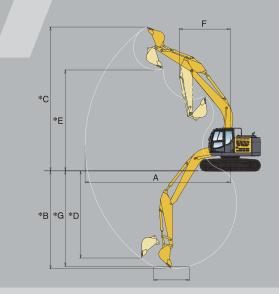




Working Ranges



Standard backhoe

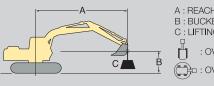


Small swing position

Unit: mm *Less grouser bar

	Standar	rd boom	Bracket on boom for small swing radius (option)			
Range Arm	Standard arm 2.93 m	Long arm 3.92 m	Standard arm 2.93 m	Long arm 3.92 m		
A : Maximum digging radius	9,930	10,870	9,930	10,870		
* B : Maximum digging depth	6,690	7,690	5,260	6,260		
* C : Maximum digging height	9,840	10,400	11,330	12,140		
* D : Maximum vertical wall	5,960	7,080	4,650	5,650		
* E : Maximum dumping height	6,900	7,440	8,260	9,070		
F : Minimum swing radius	3,480	3,380	2,050	2,310		
*G: Maximum digging depth at 2,440mm (8ft) floor length	6,520	7,550	5,090	6,120		

Lifting Capacities



A: REACH FROM SWING CENTERLINE B: BUCKET HOOK HEIGHT C: LIFTING CAPACITIES

: OVER FRONT : OVER SIDE OR 360°

HD823MR-7 BOOM: 5.63 m, ARM: 2.93 m, BUCKET: 0.8 m³ (650 kg), SHOE WIDTH: 600 mm, COUNTERWEIGHT: 6,100 kg Unit: kg

LIFT		LIFT POINT RADIUS A(m)								AT MAXIMUM				
POINT	1.50		3.	3.00		4.50		6.00		7.50		LIFT POINT RADIUS		
HEIGHT B(m)	Ů		ľ		Ů		ľ		Ů		u		RADIUS (m)	
7.50							*3650	*3650			*3580	*3580	6.11	
6.00							*4030	*4030			*3020	*3020	7.46	
4.50							*4610	4590	*4470	3090	*3010	2650	8.12	
3.00			*5480	*5480	*6930	6810	*5540	4310	4600	2960	*3150	2370	8.47	
1.50			*4960	*4960	*5680	*5680	6350	4030	4450	2820	*3430	2260	8.54	
0.00			*5200	*5200	*5120	*5120	6120	3810	4320	2710	3660	2280	8.35	
-1.50	*6530	*6530	*5080	*5080	*5050	*5050	6000	3710	4270	2660	3990	2490	7.86	
-3.00	*5660	*5660	*4910	*4910	*5190	*5190	6020	3730			4760	2980	7.02	
-4.50			*4930	*4930	*5760	*5760					6760	4230	5.68	

HD823MRLC-7 BOOM: 5.63 m, ARM: 2.93 m, BUCKET: 0.8 m³ (650 kg), SHOE WIDTH: 600 mm, COUNTERWEIGHT: 6,100 kg Init: kg

The second secon													
LIFT				LIFT POINT RADIUS A(m)							AT MAXIMUM		
POINT	1.50		3.00		4.50		6.00		7.50		LIFT POINT RADIUS		
HEIGHT B(m)	Ů		Ů		Ů		Ů		Ů		Ů		RADIUS (m)
7.50							*3650	*3650			*3580	*3580	6.11
6.00							*4030	*4030			*3020	*3020	7.46
4.50							*4610	*4610	*4470	3490	*3010	3000	8.12
3.00			*5480	*5480	*6930	*6930	*5540	4860	*4910	3360	*3150	2700	8.47
1.50			*4960	*4960	*5680	*5680	*6570	4570	5200	3220	*3430	2590	8.54
0.00			*5200	*5200	*5120	*5120	*7140	4350	5080	3100	*3930	2630	8.35
-1.50	*6530	*6530	*5080	*5080	*5050	*5050	*6710	4250	5030	3050	4690	2850	7.86
-3.00	*5660	*5660	*4910	*4910	*5190	*5190	7100	4260			5600	3410	7.02
-4.50			*4930	*4930	*5760	*5760					*6980	4810	5.68

- 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.
 7. The operator should be fully acquainted with the instruction manual before operating the machine.