



Impressive Versatility



OUTSTANDING CONTROLLABILITY AND MOBILITY

Rear-shield Canopy for Protection from Wind and Rain

The standard models are equipped with a rearshield canopy that is specially prepared by

They permit comfortable work even in light rain or a cold wind.





Easy-to-read monitor panel

With the monitor panel, the operator can check machine conditions at a glance from his seat.

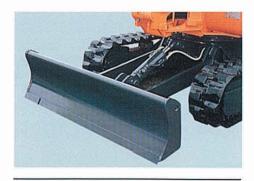


Pilot-control shut-off lever

Pilot-control shut-off lever avoids unintended mishandling when getting in and out of the seat and when the machine is not in use.



Easy-to-clean integrated molded resin floor



Long stay Blade

Long stay blade makes possible efficient leveling and backfilling.

Short Swing Radius and Excavating Force-Best in the Class

For all models, the minimum swing radius are the smallest of their class. This is good for working in water supply and sewerage systems in a restrained area, and work in urban areas such as densely populated areas and streets congested with traffic. The digging force is biggest of its class, large enough to bite into hard ground. The EX22-2 and the EX25-2 in particular are as powerful as the class above.

Combined Operations Can Be Performed Smoothly and Reliably

The Hitachi-developed Optimum Hydraulic System (OHS) employed permits combined operations, not only front attachment—swing, but also travel—front which ensures a straight-line travel and smooth motion of the front attachment. On the EX22-2 and EX25-2 in particular, the OHS-M which diverts the flow from the pilot pump to the blade line, enables the operator to work comfortably without sensing any slowdown, even in a travel-blade combined operation.



Enhanced High-Guard Protector Weight

The rear corner of the body is provided with a higher quard than Type 1 and it has a larger area. It protects the engine cover etc. from accidental contact.



Further Reinforced Pin Lock **Bucket Teeth**

Newly-developed pin lock bucket teeth to fit bucket size are employed.

They can be easily replaced with new ones when weared.



Hardly Rusting Bolts and Nuts

Bolts and nuts are treated with green chromate to prevent rusting.



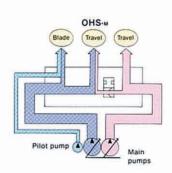
Convenient Utility Box Can also be Used for Consumables (Canopy)

The utility box utilizes canopy poles. It can be used to store tools and consumables.

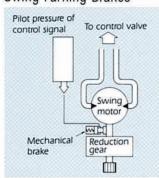
Highly Reliable Swing Parking Brakes

Because there is no natural coasting when swinging, the swing circle does not rotate when parking on a slope. Also, because no swing lock pins are needed, swing positioning is unnecessary in truck transport, allowing greater safety to be ensured.

It is also effective for preventing the superstructure from slipping during operations such as steering and swing.



Swing Parking Brakes

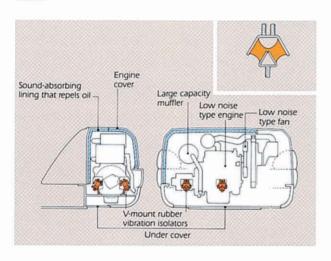




EX22/EX25

Low-noise Models Permitting Urban Construction Work without Producing a Nuisance

Extensive measures were taken to ensure worry-free work even in urban areas by reducing noise. A large-displacement engine provided with a swirl chamber featuring low noise is used at medium speeds to control noise sources. V-mount rubber vibration isolators are also used to reduce vibration and noise, and the engine cover is lined with sound absorbes that are specially treated to prevent oil spread and to minimize noise.



		EX22-2	EX25-2
Noise at operator's ears	dB(A)	75	78
Noise at 7 m away from the machine	dB(A)	63	65

Measuring conditions:

- · Level hard ground, no load during idling
- Operator's station: Canopy
- Noise at 7 m away from the machine: average in the four directions around the machine

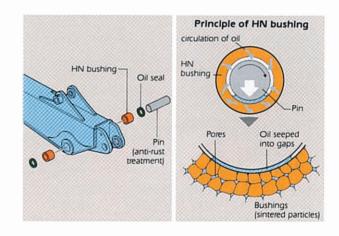


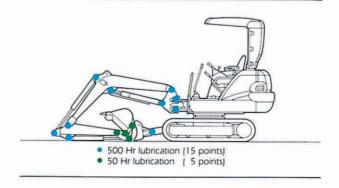
Easy Inspection and Maintenance Permitted by **HN Bushings**

All pin joints of the front attachment and the blade employ newly-developed HN bushings.

While greatly extending lubricating intervals to 500h (or one year) for the EX22-2 and the EX25-2. (in both models, four pins at the arm tip must be greased at 50h intervals.)

The HN bushings are made of a sintered composite iron alloy vacuum impregnated in micron-sized pores with a highviscosity lubricating oil. They are also applied cementation, so they are highly reliable and durable.







ENGINE

Model	KUBOTA D1105-KA
Туре	Water-cooled, 4 cycle, 3 cylinder swirl combustion chamber type diesel engine
Rated flywheel	13.6 kW (18.5 PS)
horsepower (DIN 6271, net)	at 2 200 rpm
Rated flywheel	13.5 kW (18.3 HP)
horsépower (SAE J1349, net)	at 2 200 rpm
Maximum torque	
	at 1 500 rpm
Piston displacement	
Bore and stroke	78.0 mm × 78.4 mm
Battery	1 × 12 V, 52 AH

HYDRAULIC SYSTEM

OHS (Optimum Hydraulic System)-м

OHS-M designed for job efficiency and smooth combined operation.

Main pumps 2-variable displacement axial piston pumps 2 × 25.3 L/min Maximum oil flow (2 × 5.6 Imp gpm) 1-Gear pump Maximum oil flow..... 11.0 L/min. (2.4 Imp gpm)

Relief Valve Settings

Implement circuit	23.5 MPa	(240 kgf/cm ²)
Swing circuit		(115 kgf/cm ²)
Travel circuit	22.5 MPa	(230 kgf/cm ²)
Pilot circuit	3.9 MPa	(40 kgf/cm ²)

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and boom swing cylinders to absorb shocks at stroke ends.

Dimensions

	Quan.		Stroke		
Boom	1	70 mm	578 mm		
Arm	1	65 mm	505 mm		
Bucket	1	60 mm	440 mm		
Boom swing	1	80 mm	435 mm		
Blade	1	75 mm	150 mm		



CONTROLS

Pilot controls (for front and swing operations), light touch and excellent controllability.



SUPERSTRUCTURE

Swing Mechanism

High-torque, axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type. Swing shockless valve built in swing motor absorbs shocks when stopping swing, ensuring smooth stops. Also counter balanceless system is employed for smooth operation when starting and stopping swing.

Operator's Cab (Factory Option)

Independent roomy cab, conforming to ISO* Standards. Reinforced glass windows on all 4 sides for all-round visibility. Front window (upper side), fully openable, are spring-assisted for easy storing in the cab and for absorbing shocks during lowering.

*International Standard Organization

UNDERCARRIAGE

Tracks

Tractor-type undercarriage. Heavy-duty track frame of all welded structure. High-Grade materials employed for heavy-duty operation. Side frames are rigidly welded to the track frame.

Rugged track frame and sloped side frames for easy mud removal.

Numbers of Rollers and Guide Plates on Each Side Guide plates Lower rollers

Traction Device

Each track driven by a high-torque, axial piston 2 speed travel motor through planetary reduction gear, allowing counterrotation of the tracks. Travel shock-less relief valve built in travel motor absorbs shocks when stopping travel, ensuring smooth stops.

Low: 0 to 2.2 km/h 21.6 kN (2 200 kgf) Maximum traction force

WEIGHTS AND GROUND PRESSURE

Equipped with 2.1 m boom, 1.11 m arm and 0.068 m3 (PCSA heaped) buck

Choo tugo	Shoe	Standard ur	ndercarriage
Shoe type	width	Operating weight	Ground pressure
*Rubber (canopy)	250 mm	2 250 kg	30.4 kPa (0.31 kgf/cm²)
(cabin)	250 mm	2 380 kg	32.4 kPa (0.33 kgf/cm²)
Double grouser (canopy)	250 mm	2 310 kg	31.4 kPa (0.32 kgf/cm²)
(cabin)	250 mm	2 440 kg	33.3 kPa (0.34 kgf/cm²)
Double grouser (canopy)	300 mm	2 340 kg	26.0 kPa (0.26 kgf/cm²)
(cabin)	300 mm	2 470 kg	29.9 kPa (0.30 kgf/cm²)
Triangular (canopy)	400 mm	2 450 kg	21.3 kPa (0.22 kgf/cm²)
(cabin)	400 mm	2 580 kg	22.7 kPa (0.23 kgf/cm ²)

^{*}Mark is standard specifications

SERVICE REFILL CAPACITIES



Buckets

Cap	acity	W	idth			Recommendation		
n	n ³	m	mm		Weight	2.1 m	boom	
PCSA heaped	CECE heaped	Without side cutters	With side cutters	teeth	kg	*1.11 m arm	1.41 m arm	
0.04	0.035	260	300	2	41	0	0	
0.047	0.04	310	350	3	44	0	0	
*0.068	0.06	420	460	3	49	0		
0.087	0.075	510	550	4	56		Δ	
A-W-	A: Arm	crowd forc	e	kN	(kgf)	12.2 (1 240)	10.5	
B	B: Buck	et digging f	orce	kN	(kgf)	19.6 (2 000)		

*Marks are standard specifications

- Suitable for materials with density of 2 000 kg/m³ or less
 □ Suitable for materials with density of 1 600 kg/m³ or less
 △ Suitable for materials with density of 1 100 kg/m³ or less

CANOPY TYPE

LIFTING CAPACITIES

Side: Rating over-side or 360 degrees Front: Rating over-front

With dozer blade above ground

Unit: 1 000 kg

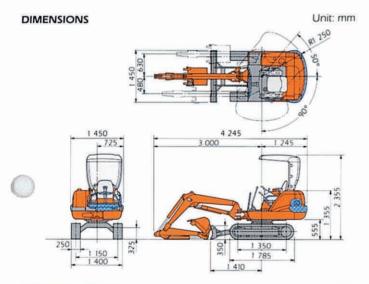
	Load			Load	radius			At max. reach		
Condition	point heigh	2	m	3	m	4	m			
	m	Side	Front	Side	Front	Side	Front	Side	Front	@m
Boom: 2.1 m	3			*0.41	*0.41			0.35	0.32	3.57
Arm: 1.11 m	2	*0.45	*0.45	*0.42	*0.42			0.27	0.25	4.07
PCSA: 0.068 m ³	1			0.43	0.40	0.27	0.25	0.25	0.23	4.19
Grouser shoe 250 mm	[Ground]	0.75	0.71	0.41	0.38			0.27	0.25	3.98
250 mm	-1	0.75	0.72	0.41	0.38			0.36	0.33	3.32

With dozer blade on ground

Unit: 1 000 kg

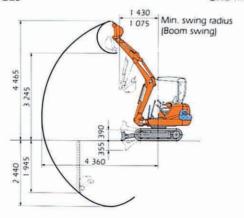
	Load				At max, reach					
Condition	point	2	m	3	m	4	m	VI	max, re-	acn
	m	Side	Front	Side	Front	Side	Front	Side	Front	@m
200m: 2.1 m	3			*0.41	*0.41			0.35	•0.38	3.57
m: 1.11 m	2	*0.45	•0.45	•0.42	*0.42			0.27	•0.39	4.07
PCSA: 0.068 m ³	1			0.43	•0.56	0.27	*0.42	0.25	*0.41	4.19
Grouser shoe 250 mm	(Ground)	0.75	•0.87	0.41	•0.65			0.27	*0.42	3.97
250 mm	-1	0.75	*0.96	0.41	•0.60			0.36	.0.41	3.32

Rating are based on SAE J1097.
Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
The load point is a hook (not standard equipment) located on the back of the bucket.
Indicates load limited by hydraulic capacity.



WORKING RANGES

Unit: mm



CABIN TYPE

LIFTING CAPACITIES

Side: Rating over-side or 360 degrees

Front: Rating over-front

With dozer blade above ground

Unit: 1 000 kg

	Load				At max, reach					
Condition	point heigh	2	m	3	m	4	m	Λt	max. re	acn
	m	Side	Front	Side	Front	Side	Front	Side	Front	@m
Boom: 2.1 m	3			*0.41	*0.41			0.38	0.35	3.57
Arm: 1.11 m	2			-0.42	*0.42			0.30	0.27	4.07
PCSA: 0.068 m ³	Ĩ			0.47	0.44	0.30	0.28	0.28	0.25	4.19
Grouser shoe	(Ground)	0.82	0.78	0.45	0.42			0.30	0.27	3.97
250 mm	-1	0.82	0.78	0.44	0.41			0.39	0.36	3.32

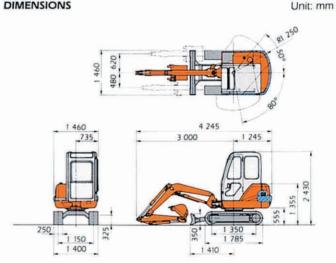
With dozer blade on ground, with cabin

Unit:	1000	ko

	Load								At max, reach			
Condition	point heigh	2	m	3	m	4	m	V	max. re	acn		
	m	Side	Front	Side	Front	Side	Front	Side	Front	@m		
Boom: 2.1 m	3			*0.41	*0.41			0.38	•0.38	3.57		
Arm: 1.11 m	2			*0.42	*0.42			0.30	•0.39	4.07		
PCSA: 0.068 m ³	18			0.47	•0.56	0.25	0.41	0.28	-0.41	4.19		
Grouser shoe	(Ground)	0.81	*0.87	0.45	•0.65			0.30	*0.42	3.97		
250 mm	-1	0.82	*0.96	0.44	•0.60			0.39	-0.41	3.32		

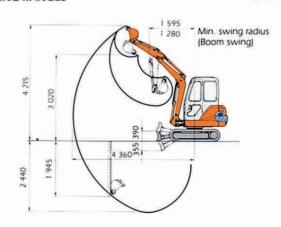
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2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook (not standard equipment) located on the back of the bucket.
4. *Indicates load limited by hydraulic capacity.

DIMENSIONS



WORKING RANGES

Unit: mm







Model	KUBOTA D1105-KA
Туре	
Rated flywheel	14.7 kW (20.0 PS)
horsepower (DIN 6271, net)	at 2 400 rpm
Rated flywheel horsepower (SAE J1349, net)	
Maximum torque	
Piston displacement	1.123 L
	78.0 mm × 78.4 mm 1 × 12 V, 52 AH



HYDRAULIC SYSTEM

OHS (Optimum Hydraulic System)-м

OHS-M designed for job efficiency and smooth combined operation. Main pumps 2-variable displacement axial piston pumps 2 × 27.6 L/min Maximum oil flow (2 × 6.1 Imp gpm) 1-Gear pump Pilot pump..... Maximum oil flow..... 12.0 L/min.

Relief Valve Settings

Implement circuit	23.5	MPa	(240	kgf/cm ²)
Swing circuit	11.3	MPa	1115	kqf/cm ²)
Travel circuit	22.5	MPa	(230	kqf/cm ²)
Pilot circuit	3.9	MPa	1 40	kqf/cm2)

(2.6 Imp gpm)

Hydraulic Cylinders

High-strength piston rods and tubes. Cylinder cushion mechanisms provided in boom and boom swing cylinders to absorb shocks at stroke ends.

Dimensions

	Quan.	Bore	Stroke
Boom	1	70 mm	578 mm
Arm	1	70 mm	560 mm
Bucket	1	60 mm	440 mm
Boom swing	1	80 mm	435 mm
Blade	1	75 mm	150 mm



CONTROLS

Pilot controls (for front and swing operations), light touch and excellent con-



SUPERSTRUCTURE

Swing Mechanism

High-torque, axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Swing parking brake is spring-set/hydraulic-released disc type. Swing shockless valve built in swing motor absorbs shocks when stopping swing, ensuring smooth stops. Also counter balanceless system is employed for smooth operation when starting and stopping swing. Swing lock (pin lock type) is provided for

9.5 min-1 (9.5 rpm) Swing speed Boom swing angle Canopy Left: 90°, Right: 50°
Cabin Left: 80°, Right: 50°

Operator's Cab (Factory Option)

Independent roomy cab, conforming to ISO* Standards. Reinforced glass windows on all 4 sides for all-round visibility. Front window (upper side), fully openable, are spring-assisted for easy storing in the cab and for absorbing shocks during lowering.

*International Standard Organization



UNDERCARRIAGE

Tractor-type undercarriage. Heavy-duty track frame of all welded structure. High-Grade materials employed for heavy-duty operation. Side frames are rigidly welded to the track frame.

Rugged track frame and sloped side frames for easy mud removal.

Numbers of Rollers and Guide Plates on Each Side

Lower rollers 4

Traction Device

Each track driven by a high-torque, axial piston 2 speed travel motor through planetary reduction gear, allowing counterrotation of the tracks. Travel shockless relief valve built in travel motor absorbs shocks when stopping travel, en-

Travel speeds	. High	: 0	to 4.0 km/h
			to 2.4 km/h
Maximum traction force	21.6	kN	(2 200 kgf)
Gradeability	30° (58	3%)	continuous



WEIGHTS AND GROUND PRESSURE

Equipped with 2.28 m boom, 1.2 m arm and 0.068 m3 (PCSA heaps bucket.



Chan hann	Shoe	Standard undercarriage					
Shoe type	width	Operating weight	Ground pressure				
*Rubber (canopy)	300 mm	2 400 kg	24.5 kPa (0.25 kgf/cm²)				
(cabin)	300 mm	2 530 kg	26.5 kPa (0.27 kgf/cm²)				
Double grouser (canopy)	300 mm	2 460 kg	26.5 kPa (0.26 kgf/cm²)				
(cabin)	300 mm 2 590 kg		26.5 kPa (0.27 kgf/cm²				
Double grouser (canopy)	400 mm	2 520 kg	20.1 kPa (0.19 kgf/cm²)				
(cabin)	400 mm	2 650 kg	20.4 kPa (0.21 kgf/cm ²)				
Triangular (canopy)	400 mm	2 575 kg	20.1 kPa (0.19 kgf/cm²)				
(cabin)	400 mm	2 705 kg	20.4 kPa (0.21 kgf/cm²)				

Mark is standard specifications.

SERVICE REFILL CAPACITIES



Fuel tank	liters 50	Imp gal
Engine coolant	6.0	1.3
Engine oil	5.1	1.1
Travel final device (each side)	0.5	0.11
Hydraulic tank	40	8.8

Buckets

Cap	acity	Wi	dth			Recommendation		
п	m³		m	No. of	Weight	2.28 m boom		
PCSA heaped	CECE heaped	Without side cutters	With side cutters	teeth	teeth	kg	*1.2 m arm	1.5 m arm
0.04	0.035	260	300	2	41	0	0	
0.047	0.04	310	350	3	44	0	0	
*0.068	0.07	440	480	3	49	0		
0.087	0.075	510	550	4	56		Δ	
- College	A: A:	crowd forc	e	kN	(kgf)	14.3 (1 460)	12.5 (1 280)	
B	B: Buck	ket digging f	orce	kN	(kgf)	19.6 (2 000)		

*Marks are standard specifications

- O Suitable for materials with density of 2 000 kg/m³ or less

 ☐ Suitable for materials with density of 1 600 kg/m³ or less

 △ Suitable for materials with density of 1 100 kg/m³ or less

CANOPY TYPE

LIFTING CAPACITIES

Side: Rating over-side or 360 degrees

Front: Rating over-front

With dozer blade above ground

Unit: 1 000 kg

	Load				At max, reach					
Condition	point heigh	2	m	3	m 4		m	AL.	max. rea	acri
	m	Side	Front	Side	Front	Side	Front	Side	Front	@m
Boom: 2.28 m Arm: 1.2 m	3			*0.45	*0.45			0.30	0.32	3.86
	2	•0.57	•0.57	0.46	0.48	0.28	0.29	0.24	0.25	4.32
PCSA: 0.068 m ³	1			0.42	0.45	0.27	0.28	0.22	0.23	4.43
Grouser shoe 250 mm	(Ground)	0.72	0.79	0.40	0.42	0.26	0.27	0.23	0.24	4.23
	-1	0.73	0.80	0.39	0.41			0.30	0.31	3.65

With dozer blade on ground

Unit: 1 000 kg

	Load			Load	radius			۸.	At may south		
Condition	point heigh	2	m	3	m	4	m	At max. reach			
	m	Side	Front	Side	Front	Side	Front	Side	Front	@m	
-200m; 2 L m	3			*0.45	*0.45			0.30	*0.46	3.86	
n: 1.2 m n: 1.2 m acket PCSA: 0.068 m³ CECE: 0.06 m³ Grouser shoe 250 mm	2	•0.57	*0.57	0.46	•0.52	0.28	•0.50	0.24	*0.49	4.32	
	1			0.42	•0.73	0.27	*0.55	0.22	•0.52	4.43	
	(Ground)	0.72	•0.98	0.40	•0.89	0.26	•0.60	0.23	•0.55	4.23	
	-1	0.73	-1.20	0.39	•0.86			0.30	*0.57	3.65	

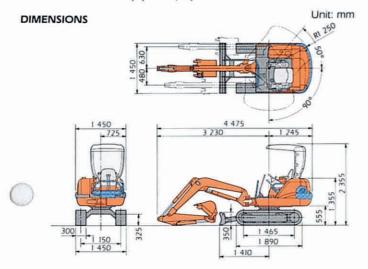
Rating are based on SAE J1097

- Rating are based on SNE J1097.

 Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.

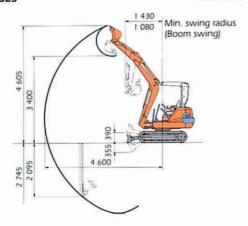
 The load point is a hook (not standard equipment) located on the back of the bucket.

 *Indicates load limited by hydraulic capacity.



WORKING RANGES

Unit: mm



CABIN TYPE

LIFTING CAPACITIES

Side: Rating over-side or 360 degrees

Front: Rating over-front

With dozer blade above ground

Unit: 1 000 kg

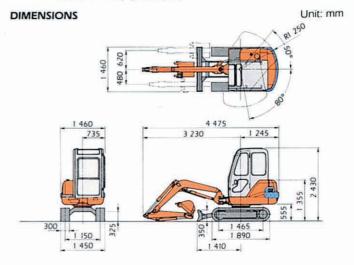
	Load				At max, reach					
Condition	point	2	m	3	m	4	m	- At	max. rea	acn
	m	Side	Front	Side	Front	Side	Front	Side	Front	@m
	3			*0.45	*0.45			0.33	0.34	3.86
Boom: 2.1 m Arm: 1.2 m	2			0.49	•0.52			0.27	0.28	4.32
PCSA: 0.068 m ³	1			0.46	0.49	0.29	0.31	0.25	0.26	4.43
Grouser shoe 250 mm	(Ground)	0.79	0.86	0.46	0.49	0.28	0.29	0.26	0.27	4.23
	-1	0.80	0.87	0.43	0.45			0.33	0.34	3.65

With dozer blade on ground, with cabin

Unit: 1 000 kg

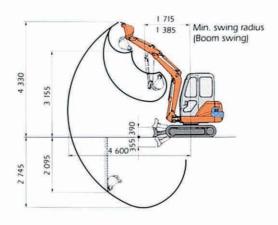
	Load		940	As many many							
Condition	point heigh	2	2 m		3 m		m	At max. reach			
	m	Side	Front	Side	Front	Side	Front	Side	Front	@m	
Boom: 2.1 m Arm: 1.2 m Bucket PCSA: 0.068 m³ CECE: 0.06 m³ Grouser shoe 250 mm	3			*0.45	*0.45			0.33	*0.47	3.86	
	2			0.49	•0.52			0.27	*0.49	4.32	
	1			0.46	•0.73	0.25	0.41	0.25	*0.52	4.43	
	(Ground)	0.79	•0.98	0.43	•0.89			0.26	•0.55	4.23	
	-1	0.80	•1.20	0.43	*0.86			0.33	*0.57	3.65	

- Rating are based on SAE J1097.
 Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
 The load point is a hook (not standard equipment) located on the back of the bucket.
 *Indicates load limited by hydraulic capacity.



WORKING RANGES

Unit: mm



These specifications are subject to change without notice. Models and specifications may vary by country, so, please consult your Hitachi dealer for details.

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