HITACHI

EX8

- Rated engine HP 5.9 kW (8.0 PS)
- Operating weight With Canopy: 760 kg (1 780 lb)
  Without Canopy: 740 kg (1 630 lb)
- Backhoe bucket PCSA heaped: 0.016 — 0.024 m^3
  (0.02 — 0.03 cu yd)
  CECE heaped: 0.013 — 0.02 m^3

EXCEPTIONAL MOBILITY SUITED FOR URBAN WORK

- OHS for smooth combined operations.
- Low noise design best-suited for work in urban areas.
- Small turning radius suited for narrow space.
- The widest working range in this class.
- Protector weight for body protection.
- Gate lock lever to be never left unlocked.
- Engine key stop of car feeling.

ENGINE

Model ..... KUBOTA Z482-B
Type ..... Water-cooled, 4 cycle, 2 cylinder swirl combustion chamber type diesel engine
Rated flywheel horsepower (DIN 6271, net) ..... 5.9 kW (**8.0 PS**) at 2 300 rpm
Rated flywheel horsepower (SAE J1349, net) ..... 5.9 kW (**7.9 HP**) at 2 300 rpm
Maximum torque ..... 26.5 N·m (**2.7 kgf·m, 19.5 lbf·ft**) at 1 400 ~ 1 600 rpm
Piston displacement ..... 0.479 l (**29.2 cu in**)
Bore and stroke ..... 67 mm x 68 mm (**2.6″ x 2.7″**)
Batteries ..... 1 x 12 V, 27 AH

HYDRAULIC SYSTEM

OHS (Optimum Hydraulic System)

This system with two main pumps gives high independence to each actuator for easy and smooth combined operation. Such as travel/blade, travel/swing and travel/arm.
Main pumps ..... 2-Gear pumps
Maximum oil flow ..... 2 x 9.2 l/min (**2 x 2.4 US gpm, 2 x 2.0 Imp gpm**)

Relief Valve Settings

Implement circuit ..... 15.7 MPa (**160 kgf/cm², 2 275 psi**)
Swing circuit ..... 7.4 MPa (**75 kgf/cm², 1 067 psi**)
Travel circuit ..... 15.7 MPa (**160 kgf/cm², 2 275 psi**)

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	50 mm (2.0″)	325 mm (1′1″)
Arm	1	50 mm (2.0″)	310 mm (1′0″)
Bucket	1	50 mm (2.0″)	235 mm (9.3″)
Boom swing	1	50 mm (2.0″)	275 mm (11″)
Blade	1	50 mm (2.0″)	75 mm (3″)

SUPERSTRUCTURE

Swing Mechanism

Hydraulic orbit motor-driven. Swing circle is single-row, shear-type ball bearing with induction-hardened internal gear. Internal gear and pinion gear are immersed in lubricant. Counter balanceless system is employed for smooth operation when starting and stopping swing. Swing lock (pin lock type) is provided for transporting.
Swing speed ..... 8.8 min^{-1} (**8.8 rpm**)
Boom swing angle ..... Left: 90°, Right: 50°

UNDERCARRIAGE

Tracks

Heavy-duty track frame of all welded structure. Top-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 Shoes on Each Side

Upper rollers 1
Lower rollers 2
Track shoes 37

Traction Device

Each track driven by a high-torque, axial piston travel motor.
Travel speeds ..... 0 to 2.2 km/h (**1.37 mph**)
Maximum traction force ..... 5.3 kN (**540 kgf, 1 188 lbf**)
Gradeability ..... 30° (58%) continuous

WEIGHTS AND GROUND PRESSURE

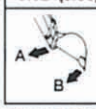
Equipped with 1.35 m (**4′5″**) boom, 0.70 m (**2′4″**) arm and 0.024 m^3 (**0.03 cu yd: PCSA heaped**) bucket.

Shoe type	Shoe width	Standard undercarriage	
		Operating weight	Ground pressure
Rubber (canopy)	180 mm (7.1″)	760 kg (1 620 lb)	19.6 kPa (0.2 kgf/cm², 2.8 psi)

SERVICE REFILL CAPACITIES

	liters	US gal	Imp gal
Fuel tank	9.0	2.4	2.0
Engine coolant	2.3	0.6	0.5
Engine oil	1.9	0.5	0.4
Travel final device (each side)	0.3	0.08	0.07
Hydraulic tank	15.7	4.1	3.5

Buckets

Capacity m^3 (cu yd)		Width mm (ft in)		No. of teeth	Weight kg (lb)	Recommendation 1.35 m (4′5″) boom	
PCSA heaped	CECE heaped	Without side cutters	With side cutters			*0.70 m (2′4″) arm	0.90 m (2′11″) arm
0.016(0.02)	0.013	230(9.1″)	250(9.8″)	2	13(28.6)	○	○
0.02 (0.03)	0.017	280(11″)	300(11.8″)	3	14(30.8)	○	○
*0.024(0.03)	0.02	320(12.6″)	340(13.4″)	3	15(33)	○	□
	A: Arm crowd force kN (kgf, lbf)					5.1 (520, 1 144)	4.5 (460, 1 012)
	B: Bucket digging force kN (kgf, lbf)					8.03(820, 1 804)	

*Marks are standard specifications
○ Suitable for materials with density of 2 000 kg/m^3 (**3 370 lb/cu yd**) or less
□ Suitable for materials with density of 1 600 kg/m^3 (**2 700 lb/cu yd**) or less

CANOPY TYPE

LIFTING CAPACITIES

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

With dozer blade above ground

Unit: ton (lb)

Condition	Load point height m(ft in)	Load radius				At max. reach		
		1 m (3'3")		2 m (6'7")				
		Side	Front	Side	Front	Side	Front	@m(ft in)
Boom: 1.35 m (4'5") Arm: 0.70 m (2'4") Bucket PCSA: 0.024 m³ (0.03 cu yd) CECE: 0.02 m³ Rubber shoe 180 mm (7.1")	2 (6'7")					0.08 (176)	0.11 (242)	2.26 (7'5")
	1 (3'3")			0.10 (220)	0.13 (286)	0.06 (132)	0.08 (176)	2.69 (8'10")
	0 (Ground)			0.08 (176)	0.12 (264)	0.06 (132)	0.08 (176)	2.56 (8'5")
	−1 (−3'3")	0.26 (572)	*0.33 (726)					

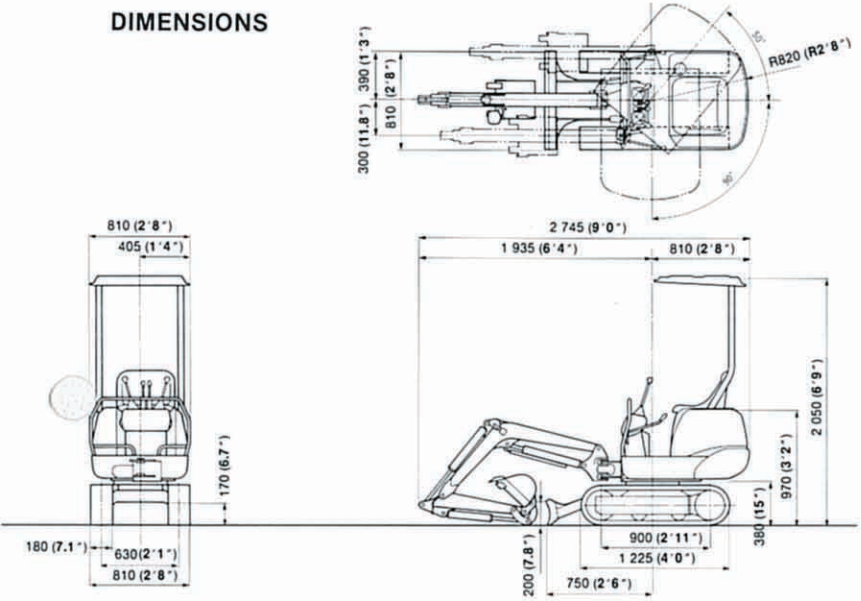
With dozer blade on ground

Unit: ton (lb)

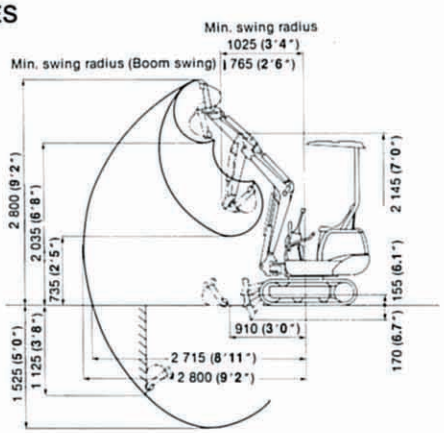
Condition	Load point height m(ft in)	Load radius				At max. reach		
		1 m (3'3")		2 m (6'7")				
		Side	Front	Side	Front	Side	Front	@m(ft in)
Boom: 1.35 m (4'5") Arm: 0.70 m (2'4") Bucket PCSA: 0.024 m³ (0.03 cu yd) CECE: 0.02 m³ Rubber shoe 180 mm (7.1")	2 (6'7")					0.08 (176)	*0.17 (374)	2.26 (7'5")
	1 (3'3")			0.10 (220)	*0.20 (440)	0.06 (132)	*0.17 (374)	2.69 (8'10")
	0 (Ground)			0.09 (198)	*0.26 (572)	0.06 (132)	*0.18 (396)	2.56 (8'5")
	−1 (−3'3")	0.26 (572)	*0.33 (726)					

Notes: 1. Rating are based on SAE J1097.
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



WITHOUT CANOPY TYPE

LIFTING CAPACITIES

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

With dozer blade above ground

Unit: ton (lb)

Condition	Load point height m(ft in)	Load radius				At max. reach		
		1 m (3'3")		2 m (6'7")				
		Side	Front	Side	Front	Side	Front	@m(ft in)
Boom: 1.35 m (4'5") Arm: 0.70 m (2'4") Bucket PCSA: 0.024 m³ (0.03 cu yd) CECE: 0.02 m³ Rubber shoe 180 mm (7.1")	2 (6'7")					0.08 (176)	0.10 (220)	2.26 (7'5")
	1 (3'3")			0.09 (198)	0.12 (264)	0.06 (132)	0.07 (154)	2.69 (8'10")
	0 (Ground)			0.08 (176)	0.11 (242)	0.06 (132)	0.08 (176)	2.56 (8'5")
	−1 (−3'3")	0.25 (550)	*0.33 (726)					

With dozer blade on ground

Unit: ton (lb)

Condition	Load point height m(ft in)	Load radius				At max. reach		
		1 m (3'3")		2 m (6'7")				
		Side	Front	Side	Front	Side	Front	@m(ft in)
Boom: 1.35 m (4'5") Arm: 0.70 m (2'4") Bucket PCSA: 0.024 m³ (0.03 cu yd) CECE: 0.02 m³ Rubber shoe 180 mm (7.1")	2 (6'7")					0.08 (176)	*0.17 (374)	2.26 (7'5")
	1 (3'3")			0.09 (198)	*0.20 (440)	0.06 (132)	*0.17 (374)	2.69 (8'10")
	0 (Ground)			0.08 (176)	*0.26 (572)	0.06 (132)	*0.18 (396)	2.56 (8'5")
	−1 (−3'3")	0.25 (550)	*0.33 (726)					

Notes: 1. Rating are based on SAE J1097.
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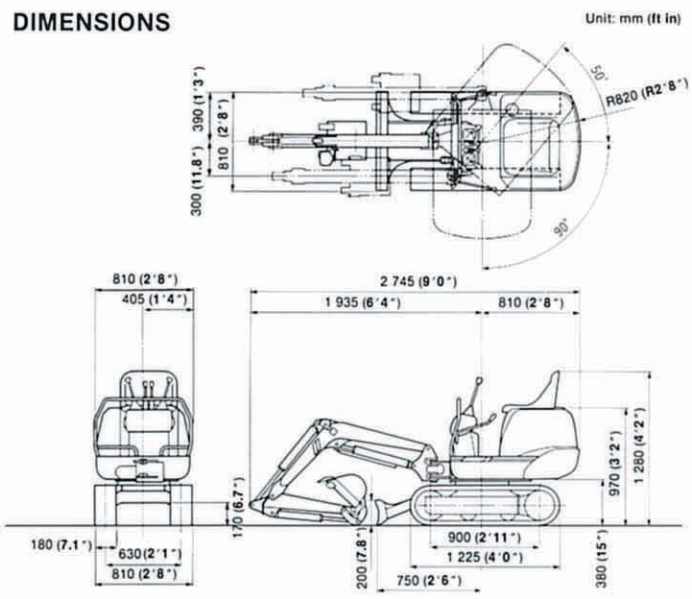
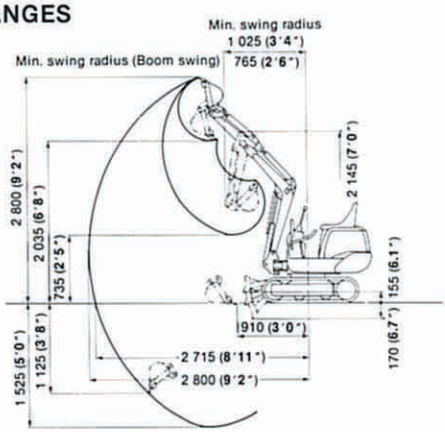
*4. *Indicates load limited by hydraulic capacity.*

DIMENSIONS

Unit: mm (ft in)



WORKING RANGES



Outstanding Controllability and Mobility

1

2

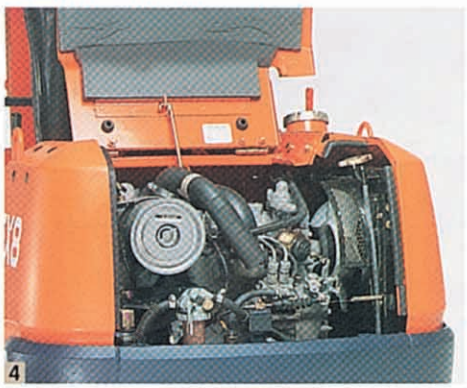

3

1 Fail-safe gate lock lever
With the fail-safe gate lock levers, the control levers can be locked without fail, allowing access to the operator's seat from either left or right side.

2 Body cover protection weight
A body may be protected from damage by any external shock during operation.

3 Engine key stop of car feeling
With the adoption of stop motor, an engine may be stopped only by turning the key off. Moreover the enigne food or fuel cap can be locked and unlocked with the engine key.

4 Easy engine access
The engine cover opens completely to allow easy access during engine maintenance.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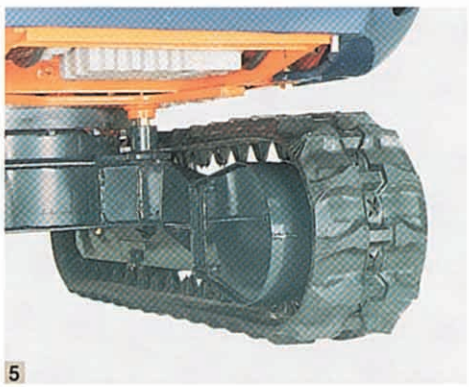
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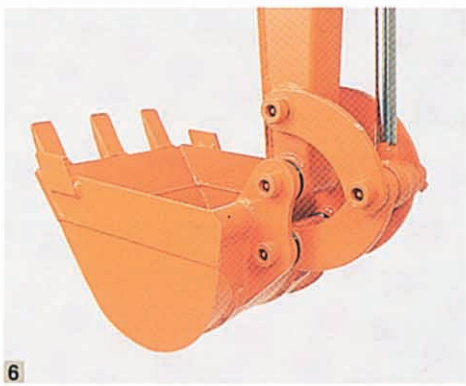
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5 Compact traction mechanism
Compact yet study travel mechanism, with travel piping provided within track frame.

6 O-ring type pin seal
O-ring seal is provided at the pin, located at the arm top, to seal out dirt, extending lubricating intervals.

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