

Specifications

ENGINE

Model Isuzu 6BD1
 Type Water-cooled, 4-cycle, 6-cylinder in-line, direct injection chamber type diesel engine

Rated flywheel horsepower
 DIN* 6271, net 73.6 kW (100 PS) at 2 200 min⁻¹ (2 200 rpm)
 SAE**J1349, net 72.4 kW (97 HP) at 2 200 min⁻¹ (2 200 rpm)

(*DIN: Deutsche Industrie Norm (German Industrial Standards)
 (**SAE: Society of Automotive Engineers, USA)

Maximum torque 353 N·m (36.0 kgf·m, 260 lbf·ft) at 1 400 min⁻¹ (1 400 rpm)

Piston displacement 5.79 l (353 cu in)
 Bore and stroke 102 mm x 118 mm (4.0" x 4.6")
 Starting system 24 V/4.5 kW electric motor starting
 Batteries 2 x 12 V/64 AH
 Air cleaner Dry type air cleaner with evacuator valve and double elements

TRANSMISSION

HST (Hydrostatic drive system) with engine speed sensing system and 2-speed (high/low) powershift transmission for maximum productivity and minimum tire slippage.
 Modulating function assures shockless acceleration/deceleration and directional change without braking. Neutral start system prevents accidental starts.

Travel speeds with 18.4-24-10PR (L-2) tires:

	Forward	Reverse
Low speed range	0–12.0 km/h (7.5 mph)	0–12.0 km/h (7.5 mph)
High speed range	0–32.0 km/h (19.9 mph)	0–32.0 km/h (19.9 mph)

Low speed range: For digging and loading operations
 High speed range: For speedy job-to-job travel

AXLE AND FINAL DRIVE

4-wheel drive system. A semi-floating front axle is fixed to the front frame. Center-pin-supported, semi-floating rear axle provides total oscillation of ±13°. A spiral bevel gear for reduction and a single-reduction planetary gear on each wheel.
 Conventional differentials standard. Optional NoSPIN differential on front axle is recommended for slippery underfoot conditions.

BRAKES

Service brakes: Hydraulically boosted, inboard-mounted, wet disc brakes actuate all 4 wheels. 2 pedals provided: the right for service braking and the left for braking with inching traveling.

Parking brake: Dry disc type, applied on front propeller shaft.

TIRES

Front and rear: 18.4-24-10PR (L-2)
 Rims: W16L-24

STEERING SYSTEM

Center-pivot-frame articulation. Full-hydraulic power steering. Articulation angle of 40° on each side for a minimum turning radius of 5 310 mm (17'5") measured at the outside corner of the bucket.

MAIN FRAME

Front and rear high-strength frames of welded box construction, linked by hardened steel pins and upper roller bearings and lower needle bearings.

FRONT-END ATTACHMENTS

Z-bar linkage provides superior breakout force and fast cycle times. Lift arm, linkage and bucket are made of high-tensile steel. All joint pins with dust seals for extended pin life and greasing intervals.

BUCKET CONTROLS

Lift arm: Positions Raise, Hold, Lower and Float. Automatic kickout at full lift height.
 Bucket: Positions Tilt, Hold and Dump. Automatic bucket positioner adjustable to desired loading angle. No visual spotting required.

Cycle times with rated load in bucket:
 Raise 5.3 sec
 Dump 0.9 sec
 Lower (empty bucket) 3.1 sec

HYDRAULIC SYSTEM

HST (HYDROSTATIC DRIVE SYSTEM)
 HST with 4-wheel drive, coupled with a 2-speed (high/low) powershift transmission.

Pump type 1 variable displacement axial piston pump
 Max. oil flow 154 l/min (40.7 US gpm, 33.9 lpm gpm)
 Relief valve setting 420 bar (420 kgf/cm², 5 970 psi)
 Motor type 1 variable displacement axial piston motor

HST charging pump 1 gear pump
 Max. oil flow 50.3 l/min (13.3 US gpm, 11.1 Imp gpm)
 Relief valve setting 30 bar (30 kgf/cm², 427 psi)

PUMP FOR LOADER AND STEERING
 Pump type 1 gear pump
 Max. oil flow 158 l/min (41.7 US gpm, 34.8 Imp gpm)

Relief valve setting:
 Loader operations 210 bar (210 kgf/cm², 2 990 psi)
 Steering 175 bar (175 kgf/cm², 2 490 psi)

HYDRAULIC CYLINDERS
 High-strength piston rods and tubes. Cylinder cushion mechanisms are provided for steering cylinders to absorb shocks when piston rods reach stroke ends.

Dimensions:

	Q'ty	Bore	Rod dia.
Lift arm	2	110 mm (4.3")	60 mm (2.4")
Bucket	1	120 mm (4.7")	65 mm (2.6")
Steering	2	65 mm (2.6")	35 mm (1.4")

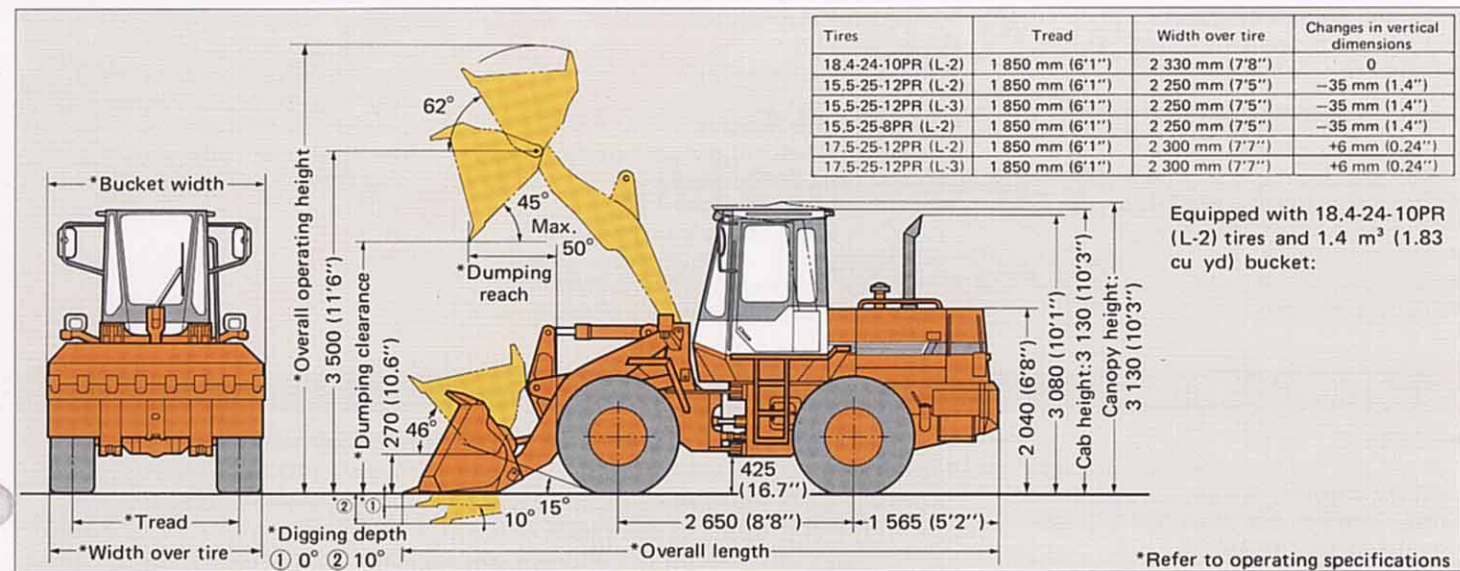
SERVICE REFILL CAPACITIES

	Liter	US gal	lpm gal
Fuel tank	140	37.0	30.8
Engine coolant	23.0	6.08	5.06
Engine oil	20.0	5.28	4.40
Transmission	5.5	1.45	1.21
Brake oil tank	0.28	0.074	0.062
Front axle	17.0	4.49	3.74
Rear axle	17.0	4.49	3.74
Hydraulic tank	24 + 50	6.34 + 13.2	5.28 + 11.0
Hydraulic system	85.0	22.5	18.7

OPERATING WEIGHT

Operating weight: 8 200 kg (18 100 lb), including rated capacity of lubricants, coolant, full fuel tank, 18.4-24-10PR (L-2) tires, 1.4 m³ (1.83 cu yd) capacity general-purpose bucket, canopy, operator and other standard equipments.

DIMENSIONS



SPECIFICATIONS

Bucket type	General purpose		Light material	
	With teeth	With cutting edges	With teeth	With cutting edges
Bucket capacity	SAE heaped (2:1) 1.4 m ³ (1.83 cu yd)	1.5 m ³ (1.96 cu yd)	1.7 m ³ (2.22 cu yd)	
	Struck	1.2 m ³ (1.57 cu yd)	1.5 m ³ (1.96 cu yd)	
Dumping clearance at max. height and 45° dump angle	2 625 mm (8'7")	2 675 mm (8'9")	2 550 mm (8'4")	2 600 mm (8'6")
Reach at 2 130 mm (7'0") height and 45° dump angle	1 435 mm (4'8")	1 410 mm (4'8")	1 485 mm (4'10")	1 460 mm (4'9")
Reach at max. height and 45° dump angle	1 065 mm (3'6")	1 010 mm (3'4")	1 155 mm (3'9")	1 100 mm (3'7")
Reach with arm horizontal and bucket level	2 145 mm (7'0")	2 075 mm (6'10")	2 265 mm (7'5")	2 195 mm (7'2")
Digging depth	Bucket horizontal 115 mm (4.5")	110 mm (4.3")	115 mm (4.5")	110 mm (4.3")
	10° digging angle	300 mm (11.8")	285 mm (11.2")	320 mm (12.6")
Overall operating height	4 530 mm (14'10")	4 530 mm (14'10")	4 665 mm (15'4")	4 665 mm (15'4")
Overall length	Bucket on ground 6 430 mm (21'1")	6 360 mm (20'10")	6 550 mm (21'6")	6 480 mm (21'3")
	Bucket in carry position	6 390 mm (21'0")	6 475 mm (21'3")	6 425 mm (21'1")
Turning radius (outside corner of bucket carry position)	5 310 mm (17'5")	5 300 mm (17'5")	5 340 mm (17'6")	5 330 mm (17'6")
Static tipping load*	Straight 5 750 kg (12 700 lb)	5 670 kg (12 500 lb)	5 650 kg (12 500 lb)	5 570 kg (12 300 lb)
	Full 40° turn	5 000 kg (11 000 lb)	4 920 kg (10 800 lb)	4 910 kg (10 800 lb)
Breakout force	83.4 kN (8 500 kgf, 18 700 lbf)	77.3 kN (7 880 kgf, 17 400 lbf)	73.0 kN (7 440 kgf, 16 400 lbf)	68.4 kN (6 970 kgf, 15 400 lbf)
Operating weight*	8 200 kg (18 100 lb)	8 260 kg (18 200 lb)	8 270 kg (18 200 lb)	8 330 kg (18 400 lb)

Notes: 1. All dimensions, weights and performance data based on SAE J732 FEB80 and J742 FEB85 Standards.
 2. Static tipping load and operating weight marked with * include 18.4-24-10PR(L-2) tires (no ballast) with lubricants, coolant, full fuel tank, canopy and operator. Machine stability and operating weight depend on counterweight, tire size and other attachments. Compensate operating weight and static tipping load with weight changes listed below.

WEIGHT CHANGES

Tires and options	Change in operating weight	Change in tipping load	
		Straight	Full 40° turn
18.4-24-10PR (L-2)	0	0	0
15.5-25-12PR (L-2) tubeless tires	-40 kg (-88 lb)	-32 kg (-71 lb)	-29 kg (-64 lb)
15.5-25-12PR (L-3) tubeless tires	+19 kg (+42 lb)	+14 kg (+31 lb)	+12 kg (+26 lb)
15.5-25-8PR (L-2) tubeless tires	-70 kg (-154 lb)	-51 kg (-112 lb)	-45 kg (-99 lb)
17.5-25-12PR (L-2) tubeless tires	+68 kg (+150 lb)	+49 kg (+108 lb)	+43 kg (+95 lb)
17.5-25-12PR (L-3) tubeless tires	+134 kg (+295 lb)	+97 kg (+214 lb)	+85 kg (+187 lb)
ROPS cab in lieu of canopy	+519 kg (+1 140 lb)	+460 kg (+1 010 lb)	+440 kg (+970 lb)
Bucket teeth (removed)	-44 kg (-97 lb)	+57 kg (+126 lb)	+57 kg (+126 lb)
Bolt-on cutting edges (removed)	-103 kg (-227 lb)	+135 kg (+298 lb)	+135 kg (+298 lb)
Additional counterweight	+220 kg (+485 lb)	+485 kg (+1 070 lb)	+405 kg (+893 lb)

STANDARD EQUIPMENT *Standard equipment may vary by country, so please consult your Hitachi dealer for details.*

- Engine
- Alternator (24 V–30 A)
- Dry type air cleaner (dual element)
- Powershift transmission (2 fwd/2 rev)
- Conventional differential

- Hydrostatic drive system
- 4-wheel drive system
- Wet disc type service brakes
- 18.4-24-10PR (L-2) tires
- Load

brake oil level and parking brake.
“Caution group”
Engine coolant temperature, engine
oil filter clogging alternator charge,