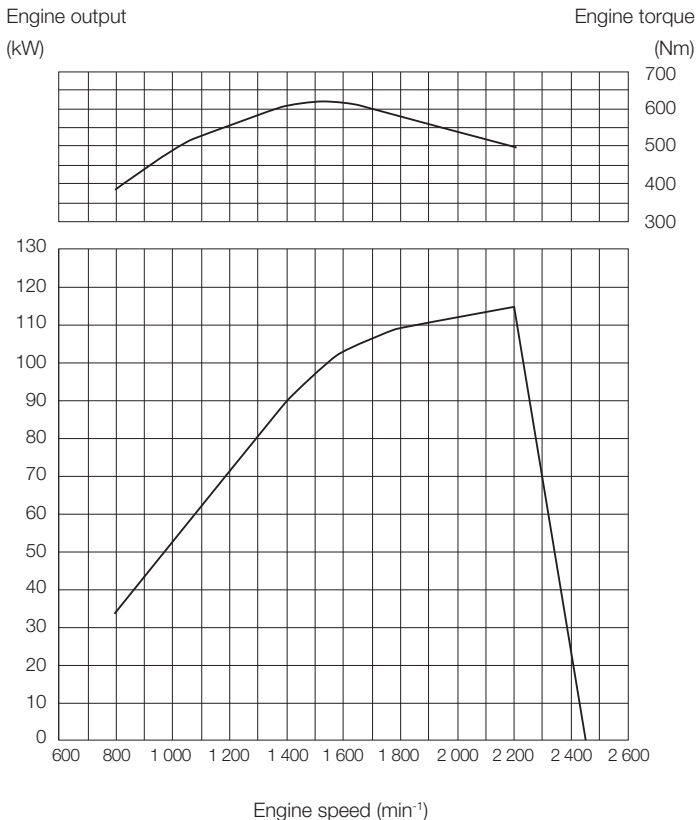


ZW150 SPECIFICATIONS

ENGINE

Model	Isuzu 4HK1
Type	4-cycle water-cooled, direct injection
Aspiration	Turbocharger and intercooled
Aftertreatment	Muffler filter
No. of cylinders	4
Maximum power	
Gross	115 kW (154 HP) at 2 200 min ⁻¹ (rpm)
ISO 9249, net	113 kW (152 HP) at 2 200 min ⁻¹ (rpm)
Maximum torque	622 Nm at 1 500 min ⁻¹ (rpm)
Bore and stroke	115 mm X 125 mm
Piston displacement	5.193 L
Batteries	2 x 12 V
Air cleaner	Two element dry type with restriction indicator



POWER TRAIN

Transmission	Electrical-controlled 2 motor hydrostatic transmission with summation gear box Gear box : Fixed gear ratio, powershift countershaft type
Cooling method	Forced circulation type
Travel speed* Forward / Reverse	
1st	7.0 / 7.0 km/h**
2nd	13.0 / 13.0 km/h
3rd	20.0 / 20.0 km/h
4th	39.0 / 39.0 km/h
*With 20.5 R25 (L3) tires	
**Adjustable from 7.0 to 13.0 km/h	

AXLE AND FINAL DRIVE

Drive system	Four-wheel drive system
Front & rear axle	Semi-floating
Front	Fixed to the front frame
Rear	Trunnion support
Reduction and differential gear	Two stage reduction with torque proportional differential
Oscillation angle	Total 20° (+10°, -10°)
Final drives	Heavy-duty planetary, mounted inboard

TIRES

Tire size	20.5 R25 (L3)
Optional	Refer to standard & optional equipment list

BRAKES

Service brakes	Inboard mounted fully hydraulic 4 wheel wet disc brake. HST (Hydro Static Transmission) system provides additional hydraulic braking capacity
Parking brakes	Spring applied, hydraulically released, wet disc type

STEERING SYSTEM

Type	Articulated frame steering
Steering angle	Each direction 40° ; total 80°
Cylinders	Double-acting piston type
No. x Bore x Stroke	2 x 65 mm x 419 mm

HYDRAULIC SYSTEM

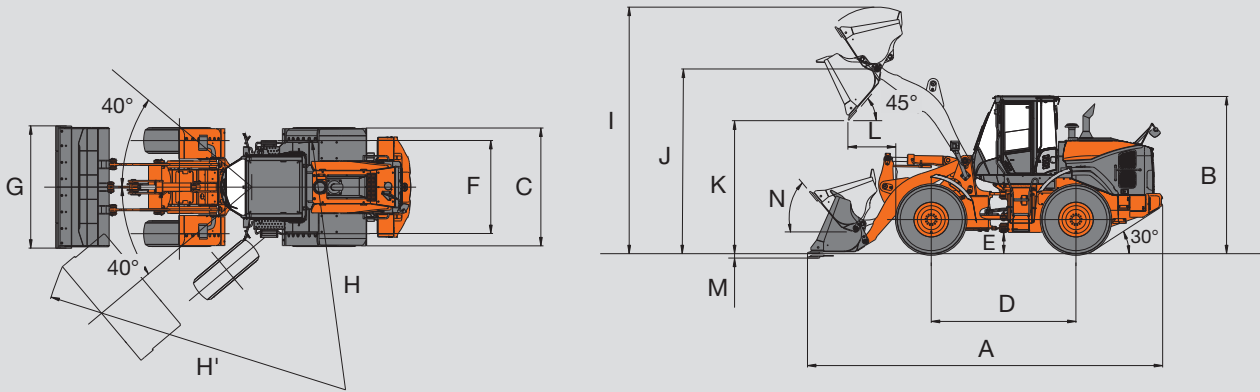
Arm and bucket are controlled by multi function control lever	
Arm controls	Four position valve ; Raise, hold, lower, float
Bucket controls with automatic bucket return-to-dig control	Three position valve ; Roll back, hold, dump
Main pump (Load & steer)	Gear type 189.2 L/min at 2 200 min ⁻¹ (rpm) at 20.6 MPa (210 kgf/cm ²)
Relief pressure setting	20.6 MPa (210 kgf/cm ²)
HST charging pump	Gear type 53.9 L/min at 2 200 min ⁻¹ (rpm) at 2.45 MPa (25 kgf/cm ²)
Transmission charging pump	Gear type 17.6 L/min at 2 200 min ⁻¹ (rpm) at 1.96 MPa (20 kgf/cm ²)
Hydraulic cylinders	
Type	Double acting type
No. x Bore x Stroke ...	Arm : 2 x 125 mm x 760 mm Bucket : 1 x 150 mm x 495 mm
Filters	Full-flow 10 micron return filter in reservoir
Hydraulic cycle times	
Lift arm raise	6.7 s (6.0 s)
Lift arm lower	4.5 s (4.5 s)
Bucket dump	1.4 s (1.4 s)
Total	12.6 s (11.9 s)

() : Data at Power Mode

SERVICE REFILL CAPACITIES

Fuel tank	205 L
Engine coolant	24 L
Engine oil	18 L
Torque convertor & transmission.....	10 L
Front axle differential & wheel hubs	25 L
Rear axle differential & wheel hubs	25 L
Hydraulic oil tank	80 L

DIMENSIONS & SPECIFICATIONS



Bucket type			Standard arm				High lift arm
			General purpose				General purpose
			Bolt-on cutting edge	Bolt-on cutting edge	Bolt-on teeth	Bolt-on teeth	Bolt-on cutting edge
Bucket capacity	ISO heaped	m ³	2.3	2.5	2.2	2.4	2.0
	ISO struck	m ³	1.9	2.1	1.8	2.0	1.7
A Overall length			7 310		7 435		7 800
B Overall height			3 265				
C Width over tires			2 480				
D Wheel base			3 000				
E Ground clearance			430				
F Tread			1 930				
G Bucket width			2 560				
H Turning radius (Centerline of outside tire)			5 085				
H' Loader clearance radius, bucket in carry position			5 950	5 965	5 985	6 000	6 130
I Overall operating height			5 120	5 180	5 120	5 180	5 390
J Height to bucket hinge pin, fully raised			3 835				4 200
K Dumping clearance 45 degree, full height			2 850	2 810	2 750	2 720	3 260
L Reach, 45 degree dump, full height			1 010	1 050	1 080	1 120	1 150
M Digging depth (Horizontal digging angle)			100	100	110	110	280
N Max. roll back at carry position			50				
Static tipping load *	Straight	kg	9 640	9 610	9 780	9 750	8 310
	Full 40 degree turn	kg	8 360	8 330	8 500	8 460	7 190
Breakout force			10 360	9 810	9 360	8 920	10 930
			kN	102	96	92	87
Operating weight *			11 880	11 910	11 830	11 860	12 380
			kg				

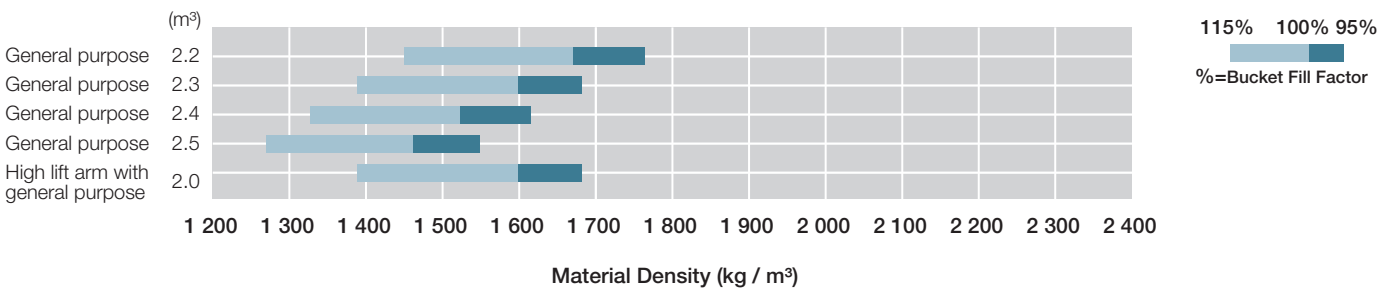
Note: All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7131:2009 and ISO 7546:1983

: Static tipping load and operating weight marked with include 20.5 R25 (L3) tires (No ballast) with lubricants, full fuel tank and operator. Machine stability and operating weight depend on counterweight, tire size and other attachments.

WEIGHT CHANGE

Option item	Operating weight (kg)	Tipping load (kg)		Overall width (mm) (outside tire)	Overall height (mm)	Overall length (mm)
		Straight	Full turn			
Belly guard	+70	+50	+40	±0	±0	±0

BUCKET SELECTION GUIDE



EQUIPMENT

● Standard equipment

○ Optional equipment

OPERATOR'S STATION

Adjustable steering column with POP-UP	●
Air suspension seat with headrest and heater: adjustable for damper, armrest angle, fabric, fore-aft position, headrest height and angle, high back, inclination of the seat, lumbar support, reclining angle, seat depth, weight-height	●
AM/FM radio with AUX for digital audio player	●
Ashtray, cigar lighter	●
Auto control air conditioner with double intake filter	●
Coat hook	●
Front/Rear defroster	●
Rear view camera & monitor	●
Rear view mirrors	
Inside (2)	●
Outside (2)	●
Outside (Heated, 2)	○
Retractable seat belt, 50 mm	●
Retractable seat belt, 75 mm	○
ROPS (ISO3471), FOPS Level II (ISO3449) compliant cab: multi-plane isolation mounted for noise, vibration reduction	●
Rubber floor mat	●
Storage	
Cup holder	●
Digital audio player holder	●
Document holder	●
Glove compartment	●
Hot & cool box	●
Seatback pocket	●
Sun visor	●
Textured steering wheel with spinner knob	●
Tinted safety glass: front windshield : laminated, others : tempered	●
Windshield washer front and rear	●
Windshield wipers front and rear	●

ELECTRICAL SYSTEM

Backup alarm	●
Batteries	
Standard batteries (80AH-622A)	●
Large capacity batteries (128AH-685A)	○
Battery disconnect switch	●
Engine auto shut-down control system	○
12 V power outlet	●

COOLING SYSTEM

Automatic reversible cooling fan with heat sensing	●
Fan guard	●
Radiator	
Standard fin pitch radiator	●
Wide fin pitch radiator	○

LIGHTS

Brake & tail lights	●
Clearance lights	●
Headlights	●
Rotating beacon	●
Turn signals with hazard switch	●
Work lights	
Front lights on cab (2)	●
Rear lights in rear grille (2)	●
Additional front lights on cab (2)	●
Rear lights on cab (2)	●

POWER TRAIN

Differential	
TPD (Torque Proportioning Differential, front and rear)	●
LSD (Limited Slip Differential, front and rear)	○
Electrically controlled HST system	●
Forward/Reverse lever	●
Forward/Reverse selector switch	●
Power mode switch	●
Traction control switch	●
1st speed limit switch	●

ENGINE

Air intake	
Air filter double elements	●
Cartridge-type engine oil filter	●
Cartridge-type fuel pre-filter	●
Cartridge-type fuel main filter	●
Engine oil remote drain	●
Pre-cleaner (Sy-Klone)	●

MONITORING SYSTEM

Gauge: coolant temperature, fuel, HST oil temperature	●
Indicator lights: air filter restriction, clearance lights, control lever lock, discharge warning, emergency steering, engine warning, fan reverse, forward/reverse selector switch, fuel filter restriction, high beam, HST oil temperature, HST warning, maintenance, muffler filter(amber), parking brake, power mode, preheat, seat belt, service, turn signal, water separator, work lights	●
LCD monitor display: clock, ECO, F-N-R/Shift position, hour meter, odometer, replacement intervals, ride control, speedometer, traction control switch	●
Warning lights: brake oil low pressure, engine oil low pressure, hydraulic oil level, muffler filter(red), overheat, steering oil low pressure,	●

BRAKE SYSTEM

Automatic spring applied/Hydraulic-released/wet disk type parking brake	●
Front & rear independent brake circuit	●
Inboard mounted fully hydraulic 4 wheel wet disc	●

HYDRAULIC SYSTEM

Bucket auto leveler (Automatic return to dig control)	●
Control lever	
for 3 spools control valve	
MF lever & AUX lever for 3rd function	●
2 levers & AUX lever for 3rd function - Outside layout pattern (Bucket - lift arm - 3rd)	○
Control lever lock switch	●
Dual lift arm auto leveler	●
Hydraulic filters	●
Lift arm float system	●
Reservoir sight gauge	●
Ride control system (OFF-AUTO type)	●



TIRES

20.5 R25 (L3)	●
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MISCELLANEOUS

Articulation lock bar	●
Belly guard (Bolt on type)	●
Bucket cylinder guard	●
Counterweight, built-in & additional	●
Drawbar with locking pin	●
Emergency steering	●
Fenders for 20.5 R25	
Front & full covered rear fenders with mud flaps	●
Global e-Service	●
Lift arm	
Standard lift arm	●
High lift arm	○
Lift & tie down hooks	●
On board information controller	●
Pilfer proof	
Battery cover with locking bracket	●
Lockable engine cover	●
Lockable fuel refilling cap	●