

# ZW120-6 SPECIFICATIONS

HITACHI

Reliable Solutions

LANDCROS

## ENGINE

Gross power (ISO 14396)	101 HP/2,000 RPM (74 kW/2,000 RPM)
Net power (ISO 9249)	96 HP/2,000 RPM (71 kW/2,000 RPM)
Make/Model	Deutz TCD3.6L4F diesel engine
Type	4-cycle, water-cooled, direct injection with turbocharger and air cooled intercooler
Fuel type	#2 Diesel (Requires ultra-low sulfur fuel.)
Fuel injection pump	Electronically controlled, common rail type
Governor	All speed electrical type
Cooling module type	Forced circulation type
Number of cylinders	4
Bore and stroke	3.9" x 4.7" (98mm x 120mm)
Total displacement	221 in <sup>3</sup> (3,621 liters)
Alternator	DC 24V–100A (2.4 kW)
Air cleaner	Dry type (double element) with restriction indicator
Starter motor	DC 24V–5.4 HP (4.0 kW)
Battery	12V–800 CCA (110 Ah), 2 units

## TORQUE CONVERTER AND TRANSMISSION

Transmission	Electrical-controlled 1 motor hydrostatic transmission with gear box, Gear box: Fixed gear ratio, powershift countershaft type
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Normal Mode

Power Mode

Speeds:		Normal Mode	Power Mode
Forward	1st:	7.1 MPH (11.5 km/hr)	7.1 MPH (11.5 km/hr)
	2nd:	21.4 MPH (34.5 km/hr)	21.4 MPH (34.5 km/hr)
Reverse	1st:	7.1 MPH (11.5 km/hr)	7.1 MPH (11.5 km/hr)
	2nd:	21.4 MPH (34.5 km/hr)	21.4 MPH (34.5 km/hr)

## SYSTEMS REFILL CAPACITY

LOCATION	GALLONS	LITERS
Fuel tank (diesel fuel)	37	140
Engine lubricant (including oil pan)	2.8	10.5
Engine coolant	4.2	16
T/M	2.1	8
Axle (front/rear)	3.7/3.7	14/14
Hydraulic oil tank	13.2	50
Hydraulic system (including hydraulic tank)	19.8	75
DEF/AdBlue® tank	4.5	17

## HYDRAULIC AND STEERING SYSTEM

Steering type	Articulated frame steering	
Steering mechanism	Double-acting piston type	
Lift (boom) cylinder	Two (2) double-acting piston type: 4.1" x 28" (105mm x 710mm)	
Tilt (bucket) cylinder	Two (2) double-acting piston type: 4.9" x 17.5" (125mm x 445mm)	
Steering cylinder	Two (2) double-acting piston type: 2.4" x 15.6" (60mm x 395mm)	
Main oil pump	32 GPM/2,988 PSI @ 2,000 RPM (121 LPM/20.6 MPa @ 2,000 RPM)	
HST charging pump	10 GPM/363 PSI @ 2,000 RPM (39 LPM/2.5 MPa @ 2,000 RPM)	
Relief valve set pressure	Loading	2,988 PSI, 20.6 MPa (210 kgf/cm <sup>2</sup> )
	Steering	2,495 PSI, 17.2 MPa (175 kgf/cm <sup>2</sup> )
HYDRAULIC CYCLE TIME* front end loading, Z bar linkage system		

Normal Mode

Lifting time (at full load)	6.6 sec.
Lowering time (empty)	2.7 sec.
Bucket dumping time	1.6 sec.
TOTAL	10.9 sec.

\* Measured in accordance with SAE J732C

## AXLE SYSTEM

Drive system	4-wheel drive
Front and rear axle	Semi-floating type
Tires	17.5-25-12PR (L-2)
Reduction and differential gear	Two-stage reduction with torque proportional differential
Final reduction gear	Inboard mounted, heavy duty planetary gear
Oscillation angle	Total 20 (+10, -10)°

## BRAKE SYSTEM

Service brakes	Inboard mounted fully hydraulic 4-wheel wet disc brakes. Front & rear independent brake circuit, HST (Hydro Static Transmission) system provides additional hydraulic braking capacity
Parking/Emergency brake	Spring-applied, hydraulically-released transmission output shaft mounted multi wet disc

## Model Name: ZW120-6, EPA Tier 4 Final/EU Stage IV Certified

### Remarks

- Materials and specifications are subject to change without notice and without any obligation on the part of the manufacturer.
- This information, while believed to be completely reliable, is not to be taken as warranty for which we assume legal responsibility.
- Dumping clearance and reach are measured from bucket edge in accordance with SAE J732C.
- Counterweight should not be used with tire ballast.
- This specification sheet may contain attachments and optional equipment not available in your area.

Please contact your local HCMA dealer for additional information.

# EQUIPMENT DATA

## ZW120-6

### BUCKET DATA

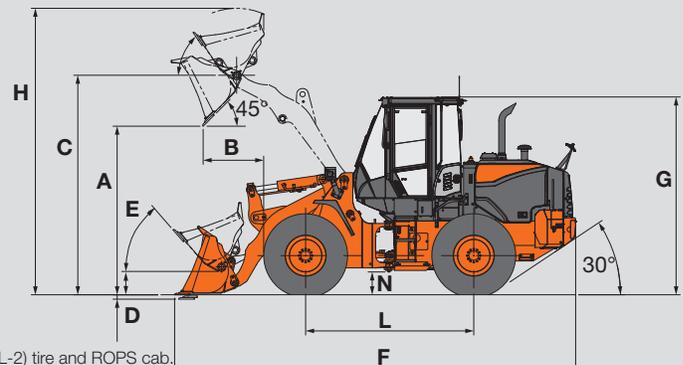
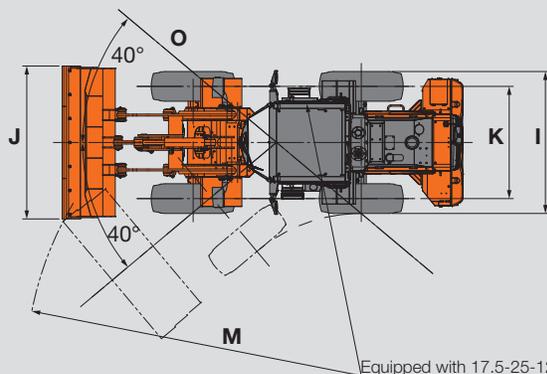
			Standard Arm		High Lift Arm
			General Purpose	Material Handling	General Purpose
			Straight Edge w/ Bolt-on Cutting Edge	Straight Edge w/ Bolt-on Cutting Edge	Straight Edge w/ Bolt-on Cutting Edge
					
Capacity	Heaped	yd <sup>3</sup> (m <sup>3</sup> )	2.0 (1.5)	2.4 (1.8)	2.0 (1.5)
	Struck	yd <sup>3</sup> (m <sup>3</sup> )	1.6 (1.2)	1.5 (1.4)	1.6 (1.2)
<b>A</b>	Maximum dumping clearance	ft-in (mm)	8'10" (2,705)	8'8" (2,630)	10' (3,040)
<b>B</b>	Dumping reach (to front of bucket edge or tooth)	ft-in (mm)	3'4" (1,010)	3'7" (1,080)	3'11" (1,190)
<b>C</b>	Max. hinge pin height	ft-in (mm)	11'8" (3,560)	11'8" (3,560)	12'10" (3,900)
<b>D</b>	Digging depth (with bucket level)	in (mm)	3" (70)	3" (70)	8" (210)
Breakout force		lbf (kN)	16,840 (75)	15,062 (67)	16,636 (74)
Bucket tilt-back angle	at ground level	degree	40°	40°	44°
	<b>E</b> at carry position	degree	49°	49°	50°
<b>F</b>	Length	ft-in (mm)	21'6" (6,545)	21'10" (6,650)	23'4" (7,105)
	<b>G</b> Height (up to cab top)	ft-in (mm)	10'6" (3,210)	10'6" (3,210)	10'6" (3,210)
Overall	<b>H</b> Height (bucket fully raised)	ft-in (mm)	15'3" (4,650)	15'7" (4,760)	16'4" (4,990)
	<b>I</b> Width (outside tire)	ft-in (mm)	7'5" (2,270)	7'5" (2,270)	7'5" (2,270)
<b>J</b>	Width (outside bucket)	ft-in (mm)	8' (2,450)	8' (2,450)	8' (2,450)
	<b>K</b> Tread	ft-in (mm)	6' (1,820)	6' (1,820)	6' (1,820)
<b>L</b>	Wheel base	ft-in (mm)	8'11" (2,725)	8'11" (2,725)	8'11" (2,725)
	Clearance Circle (bucket carry position)	<b>M</b> at outside of bucket	ft-in (mm)	17'10" (5,430)	17'11" (5,460)
at outside of tire		ft-in (mm)	16'2" (4,915)	16'2" (4,915)	16'2" (4,915)
<b>N</b>	Minimum ground clearance	in (mm)	15" (370)	15" (370)	15" (370)
<b>O</b>	Full articulation angle	degree	40°	40°	40°
Operating weight (with ROPS cab)*		lb (kg)	18,590 (8,430)	18,761 (8,510)	19,842 (9,000)
Static tipping load (with ROPS cab)*	Straight	lb (kg)	14,330 (6,500)	14,198 (6,440)	12,941 (5,870)
	Full turn	lb (kg)	12,390 (5,620)	12,236 (5,550)	11,133 (5,050)

Note: All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7137:2009 and ISO 7546:1983

\*: Static tipping load and operating weight marked with\* include 17.5-25-12PR (L-2) tires (No ballast) with lubricants, full fuel tank and operator.

Machine stability and operating weight depend on counterweight, tire size and other attachments.

### DIMENSIONS



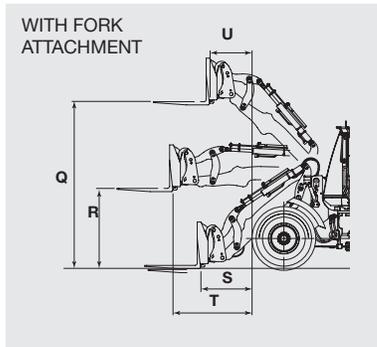
Equipped with 17.5-25-12PR (L-2) tire and ROPS cab.

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# EQUIPMENT DATA

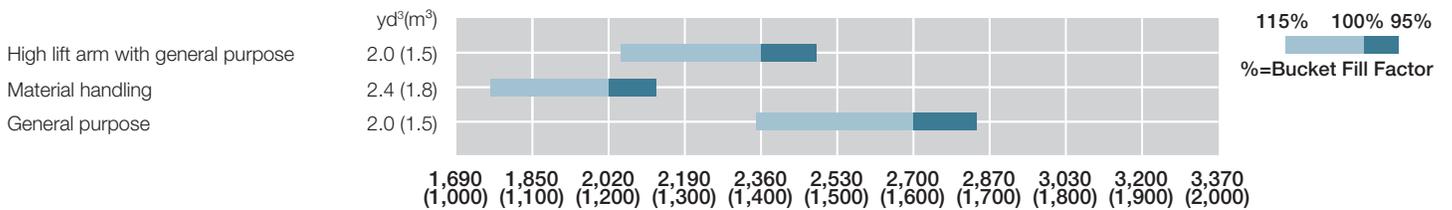
## ZW120-6

### ZW120-6 FORK SPECIFICATIONS



ZW120-6		ISO (48")	416 (48")	ISO (60")	416 (60")	
<b>Q</b>	Max. stacking height	ft	11'4"	11'5"	11'4"	11'5"
<b>R</b>	Height of fork at maximum reach	ft	5'8"	5'11"	5'8"	5'11"
<b>S</b>	Reach at ground level	ft	3'5"	3'4"	3'5"	3'4"
<b>T</b>	Max. reach	ft	5'5"	5'6"	5'5"	5'6"
<b>U</b>	Reach at max. stacking height	ft	3'4"	3'5"	3'4"	3'5"
Tipping load	Straight	lb	7,996	7,681	7,498	7,211
	Full turn	lb	6,913	6,641	6,483	6,235
Max. payload per EN 474-3, 80%		lb	5,531	5,313	5,187	4,988
Max. payload per EN 474-3, 60%		lb	4,148	3,985	3,890	3,741
SAE allowable load		lb	3,457	3,321	3,242	3,118
Operating weight *		lb	19,134	19,136	19,236	19,239

### BUCKET SELECTION CHART



# EQUIPMENT DATA

## ZW120-6

### STANDARD EQUIPMENT

#### ENGINE

Air cleaner, double element

Cold start (glow plug)

Deutz TCD36 diesel engine

EGR system

Fuel filter (main), w/water separator

Fuel pre-filter, w/water separator

Pre-cleaner (turbine type)

SCR catalyst and DOC

Work mode selector

#### POWERTRAIN

Brakes, service

Enclosed wet disc

Dual system

Inboard mounted

Brake, parking

Spring applied

Oil pressure released

Wet disc type

Cooler, wide fin

Differential, torque proportioning (F/R)

Drive shafts, low maintenance

Hydrostatic transmission

Inching pedal

Maximum speed adjuster for 1st speed (creeper function)

Traction control

#### HYDRAULIC SYSTEM

Boom kick-out, dual (operator adjustable in cab)

Bucket positioner

Control lever, single, pilot-assisted w/ F-N-R switch, w/3rd aux function lever

Control lever lock (electric)

Control valve, 3-function, parallel control

Ride control w/load sensing valve and automatic shut-off

Quick coupler control, lines and controls

Pump, gear, fixed displacement

Steering, orbitrol

#### ELECTRICAL

24-volt electrical system

Back-up alarm

Battery disconnect switch

Converter

Horn, dual electric

Instrument panel, LCD, color

Lights:

2 Headlights (halogen)

4 Forward working lights (halogen)

4 Rear working lights (halogen)

2 Stop/tail/backup (LED)

Turn signal w/4-way flashers/marker

#### CAB

ROPS cab: Enclosed cab with sound suppression, front & rear wipers and washers, two rear view and side mirrors, tinted glass, full view latch-back doors, sliding side windows.

Accessory outlet, 12V,

Adjustable armrest/console, (fore/aft sliding)

Air conditioner/heater/pressurizer

AM/FM/WB radio with AUX input

Ashtray

Cab dome lamps (2)

Cigarette lighter (24v)

Coat hook

Cooler box storage area

Cup holder (2)

Floor mat

Retractable seat belt (3 inch)

ROPS/FOPS certified, ISO 3449 Level II compliance

Seat, premium, heated w/TLV suspension

Steering column, telescoping and tilting w/quick-release pedal

Storage box (heated/cooled)

Sun visor

#### OTHERS

Articulation locking bar

Counterweight

Drawbar

Global e-Service, telematic monitoring system

Ladders, inclined

Lifting eyes

Linkage pins, HN bushing

Neutral safety start

Steps, rear

Z-bar loader linkage

#### ALARMS, GAUGES, INDICATORS

Alarms (visual & audible) Brake oil low pressure  
Engine oil low pressure

Gauges DEF/AdBlue® Level  
Engine coolant temperature  
Fuel gauge  
Overheat (engine coolant)

Indicators Aftertreatment Device  
Air cleaner element  
Air conditioner display  
Battery discharge warning  
Cold start  
Control lever lock  
Eco-operating status  
Emergency steering  
Engine warning  
Fan reverse rotation  
Fuel filter (water in fuel)  
High beam  
HST oil temperature  
HST warning  
Maintenance  
Operating mode (Normal, Power)  
Parking brake  
Ride control  
Service  
Speedometer  
Time/operating hour/ODO  
Traction control switch  
Turn signal w/4-way flashers/marker  
Work light

#### OPTIONAL EQUIPMENT

Belly guard, front chassis, transmission (rear)

Bolt-on cutting edges

Camera, rear view

Fenders, rear, full, w/mudflap

High lift boom arm

Quick coupler & attachments

#### QUICK LINKS

Website's  
Product Page

