# **HITACHI**



### WHEEL LOADER

- Model Code: ZW100 / ZW120
- Operating Weight: ZW100: 6 950-7 100 kg ZW120: 7 980-8 640 kg
- Bucket Capacity: ISO Heaped: ZW100: 1.1-1.6 m<sup>3</sup> ZW120: 1.3-1.8 m<sup>3</sup> **Engine power:** ZW100: 69 kW (93 HP)
- ZW120: 73 kW (98 HP)

# Leading-Edge Technology: Total Balance of Fuel Efficiency, Comforts and Control



The ZW100 and ZW120 are the models to the ZW series renowned as productive wheel loaders. It is packed with plenty of expertise, including low fuel consumption, green technology and advanced HST system, as well as light footwork, high maintainability and durability, operator comfort and ease of control.

 The engine complies with the Emission Regulations U.S EPA Tire3, and EU Stage III A



## **Best Matching of Power and Fuel Economy**

The ZW100 and ZW120 yield high production while keeping low fuel consumption, and high controllability and mobility.

### Four work modes selectable to suit job needs



Four work modes are selectable according to job requirements and operator's preference. In each work mode, electronic matching control, originally developed by Hitachi, detects the pressure of the implement, and controls the torque of travel motor to best match traction force and breakout force. This increases production per unit of fuel.



#### Four Work Modes

Work Modes	Materials to Be Handled
P mode (Scooping up and crowding)	<ul> <li>Relatively large crushed stones</li> <li>Concrete slag</li> <li>Stone with large specific gravity, clayey soil</li> </ul>
<b>N mode</b> (Normal operation)	<ul> <li>Small crushed stones</li> <li>Gravel</li> <li>Cobble</li> </ul>
L mode (Loading and light excavation)	<ul> <li>Sand</li> <li>Plastics, industrial wastes, chips</li> </ul>
<b>S mode</b> (Snow plowing and swamp operation)	• Snow

## Speed Selector for Efficient Loading and Operations in Confined Space

When the low speed range is selected, four travel speeds (7/9/11/13 km/h) can be further selected to suit

Low speed select switch

job needs and jobsite conditions.

## Inching Pedal for Easy Positioning in Confined Space

The operator can easily control travel speed with the inching pedal, regardless of the accelerator

regardless of the accelerator pedal, by adjusting the delivery flow from the hydraulic pump. This eases  
 Dumping Clearance
 Dumping Reach

 ZW100
 2 710 mm
 1 000 mm

 ZW120
 2 730 mm
 980 mm

Ample Dumping Clearance and Reach

### ● Fuel-Efficient ● Powerful ● Clean

Clean, Fuel-Efficient Engine



### ruel-Efficient OPowerfu

positioning in loading operation.

High power yet low fuel consumption... It's the engine that complies with the world emission regulations, and reduces sound and vibration for the operator and environment.

Max. Engine Output ZW100 69 kW (93 HP) ZW120 73 kW (98 HP)

### **Throttle Limit for Higher Fuel Efficiency**



The throttle limit cuts maximum engine speed by 10% for higher fuel efficiency. For the HST system, maximum traction force is not reduced with the reduction in engine speed. Reduction in fuel consumption and noise reduction can be realized. \*

\*Varies depending on working conditions.





The ride control reduces pitching and bouncing during traveling on rough terrain and snow road by automatic control of the implement. Shocks and vibration can be well suppressed for riding comfort.

### Torque Proportional Differential (Standard)

The torque proportional differential adjusts driving forces to both wheels. When road resistances under both wheels are different, this feature minimizes slippage of a wheel on softer ground, unlike conventional differentials. This feature enables the ZW series to get out of swamps or rough terrain easily.

### Limited Slip Differential (Optional)

On snowy roads and rough terrain, the limited slip differential can work instead of the torque proportional differential. This delivers effective driving force to both wheels for enhanced grip and less slippage during travel.

Z11100



**Mechanical Suspension Seat (Standard)** 



The mechanical suspension seat is provided standard to suppress vibration from the machine body for comfortable operation over long hours. The seat can be reclined, and adjusted horizontally to suit operator build for the optimum position. Seat cushion is also adjustable. An air suspension seat, associated with a headrest, lumbar support, seat height adjustment and seat heater, is optionally available for finer adjustments.

### **Functionally Grouped Controls**

A cluster of controls are functionally grouped for ease of operation. The controls, used for prestart setting, are located on the right console to the seat, and those, handled during operation are on the front console.

### **Adjustable Steering Column**



The steering wheel is tiltable and to suit operator of all builds for comfortable operation.

### Fingertip Control with Pilot-Controlled Lever (Optional)

The pilot-controlled lever is optionally available for pleasant fingertip control.

### **Ergonomic Pedals**

The brake pedal and accelerator pedal are ergonomically positioned for ease of control.



Bi-Level Auto Air Conditioner and Pressurized Cab



The bi-level air conditioner allows air conditioning at foot space and overhead simultaneously. Airflow direction can be freely adjusted with airflow volume automatically adjusting according to temperature setting. The pressurized cab shuts out dust and debris even in dusty environment.

# **Enhanced Operator Comfort with Luxury Designs**

Focusing on top-class operator comfort... riding comfort with less vibration and sound, and plenty of operator space... like large-sized models.



#### **Panoramic Cab**

The panoramic cab gives almost allround visibility with the widened front glass window and pillarless cab rear corners. Front wheels are always in the operator's vision, enhancing safety and increasing loading efficiency.

### Front / Rear Defrosters

With the front and rear defrosters, airflow comes out from three front air outlets and two rear outlets to protect respective windows from fogging, keeping clear vision even in rain and cold weather.

### **Shock-Dampened Cab**



The cab rests on fluid-filled elastic mounts to absorb shocks and vibration, and reduce resonance.

### Low Noise Design

The cab is well sealed, and the lownoise engine is utilized to reduce sound, along with the various noise reduction measures.

#### **Enhanced Upward Visibility**

The front curved glass window gives good upward visibility, so the operator can directly see the movement of the bucket for safer loading.

### **ROPS / FOPS Cab**

The ROPS / FOPS cab is provided to protect the operator from injury in an accident. ROPS: Roll-Over Protective Structure: ISO3471 FOPS: Falling Object Protective Structure: ISO3449

#### An Array of Standard Accessories





Hot and cool box

Large tray and drink hold





Interior light interacting with cab door Seatback pocket





AM / FM stereo radio



# **Robust Body with Strengthened Components**

The machine body is thoroughly reinforced with strengthened components for higher durability in extended service life.

Improved Drive System for Higher Reliability and Maintainability Robust Frame



The box-section frame is thickened and strengthened to resist torsion and increase durability. Center pins are widely spaced for higher resistance to torsion.

### Tough Engine

The Kubota engine, designed using leading-edge technologies including latest structural analysis, boosts reliability and durability. Miniaturized engine parts are functionally arranged to reduce vibration and sound.

### Flat Arrangement of Propeller Shaft



Flat arrangement of the propeller shaft is achieved to reduce resistance at the joint and to increase durability.

### LED Indicators and Instruments

On the indicators, monitors and alarms, many LEDs are utilized for longer service life resulting in less failure, enhancing the reliability.

#### **HN Bushings**



The HN bushing containing lubricant is provided at each joint to reduce grease consumption, extend lubrication

intervals (100 to 500 hours), and increase durability.

### O-Ring Seal (ORS) Joints and Waterproof Electric Connectors



Numerous elaborate components are utilized for higher durability and reliability. The proven ORS joints and high-pressure hydraulic lines are utilized in the hydraulic system, and waterproof connectors in the electrical system.

### **Capacious Hydraulic Oil Cooler**

The ample cooling capacity of the hydraulic oil cooler helps reduce oil temperature fluctuation, and extend service life of components.



### **Protected Fuel Tank**



The large counterweight is arranged to protect the fuel tank from collisions with obstacles during operation.

### **Keeping the Machine in Good Conditions for Higher Safety**

Plenty of maintenance expertise always keeps the machine in good conditions for enhanced safety and higher job efficiency.



### **Conveniently Located Filters**

Fuel filter, fuel pre-filter with sedimentary function and engine oil filter are strategically located for the convenient daily inspection and servicing.



### Easy-to-Replace Air Conditioning Filters



The fresh air filter can easily be replaced from the cab, and circulation air filter also replaced by detaching the drink holder.

### Extended Filter Replacement Intervals (Up from 250 to 500 Hours)

Engine oil capacity and filter capacity are increased for longer filter replacement intervals, reducing maintenance time and downtime.

#### Easy-to-Read Monitor



With the easy-to-read monitor, the operator can see instructions for scheduled servicing and maintenance. *Monitor Indication Items:* Service intervals, travel speed,

mileage, hour meter

### **Replacement Alerting:**

The indicators alert the operator for scheduled replacement intervals to ensure proper maintenance. Engine oil / filter, fuel filter, hydraulic oil / filter, transmission oil / filter, Axle oil.

#### Highly Reliable Dual-Line Brake System

The dual-line hydraulic brake system is utilized: even if one line fails, the other can work for braking. The brake is an enclosed wet single-plate type for reliable braking.

#### **Emergency Steering System (Optional)**

The emergency electric pump delivers the necessary oil pressure for power steering even in the case of an emergency. This allows normal steering at all times even if the engine fails.

#### **Other Safety Features**





Inclined Ladder

#### **Aluminum Radiator and Oil Cooler**

The radiator and oil cooler are made of aluminum instead of conventional steel or copper for corrosion prevention. Furthermore, the pararell arrangement of the radiator and oil cooler improves cooling capability and accessibility for maintenance.

# **SPECIFICATION**

### **DIMENSIONS & SPECIFICATIONS**



			ZW	100		ZW120				
Bucket type		Standard	l Lift Arm	High L	ift Arm	Standard Lift Arm		High Lift Arm		
Ducker type			General purpose with bolt-on cutting edges				General purpose with bolt-on cutting edges			
Bucket capacity ISO heaped		m³	1.3	1.6	1.1	1.3	1.5	1.8	1.3	1.5
	ISO struck	m³	1.1	1.3	0.9	1.1	1.2	1.5	1.1	1.2
A Overall length		mm	6 250	6 380	6 665	6 735	6 375	6 500	6 880	6 960
B Overall height, bucket on ground (with ROPS/FOPS cab) mm				3 1	115		3 195			
C Width over tires mm			2 140				2 260			
D Wheel base mm				26	600		2 725			
E Ground clearance mm			35	50		365				
F Tread mm			17	'25		1 820				
G Bucket width mm		2 340				2 480				
H Turning radius (cer	nterline of outside tire)	mm	4 420				4 660			
H' Loader clearance circ	le, bucket in carry position	mm	5 205	5 235	5 375	5 395	5 435	5 465	5 595	5 615
I Overall operating h	eight	mm	4 515	4 590	4 585	4 730	4 645	4 725	4 900	4 985
J Height to hinge pir	i, fully raised	mm	3 500 3 710			'10	35	555	3 895	
K Dump clearance 4	5 degree, full height	mm	2 695	2 605	2 950	2 900	2 725	2 640	3 125	3 065
L Reach, 45 degree dump, full height mm		1 015	1 100	1 275	1 325	990	1 075	1 105	1 165	
M Digging depth (horizontal digging angle) mm		65 275				65 215				
N Max. roll back at carry position deg		50				49				
Static tipping load*	straight	kgf	5 170	5 080	4 110	4 090	5 900	5 810	5 610	5 530
	Full 40 degree turn kgf		4 460	4 370	3 520	3 500	5 090	5 000	4 820	4 760
Breakout force		kN(kgf)	61 (6 222)	53 (5 406)	63 (6 426)	58 (5 916)	79 (8 058)	68 (6 936)	86 (8 772)	78 (7 956)
Operating weight (with	ROPS/FOPS cab)*	kg	6 890	6 930	7 010	7 040	7 970	8 060	8600	8630

Notes: 1. All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7131:1997 and ISO 7546:1983 2. Static tipping load and operating weight marked with \* include 16.9-24-10PR(L2):ZW100, 18.4-24-10PR(L2):ZW120 tires (no ballast) with lubricants, coolant, full fuel tank and operator. Machine stability and operating weight depend on counterweight, tire size and other attachments.

### **BUCKET SELECTION GUIDE**

									[	%=Bucket F	ill Factor	5% 1	00% 95%
ZW100 : General purpose bucket with bolt-on cutting edges	Bucket Capacity m <sup>3</sup>	80	10	1 0	000		laterial de	ensity kg/n 1 4	n³ 100	16	600	14	800
Standard lift arm	1.3								1				
	1.6					1							
High lift arm	1.1								1				
	1.3							1					
ZW120 : General purpose bucket with bolt-on cutting edges	Bucket Capacity m <sup>3</sup>	80	10	1 0	000		laterial de	ensity kg/n 1 4	n³ 100	16	600	1 8	800
Standard lift arm	1.5								1				
	1.8					1							
High lift arm	1.3								1				
	1.5												

Media         KUBCTA V3800 T-CR8         KUBCTA V3800 T-CR8           Type         4-cycle water coolididited injection           No. of cylinders         4           No. of cylinders         4           No. of cylinders         68 kW (35 HP) at 2 100 min "(type)           Bare and atrobace         100 mm x 150 mm           Ration dispacement         100 mm x 150 mm           Bare and atrobacement         12V 468 COA, 190-min.rtator reserve           POWERT TRAIN         2V/100         2W120           Transmission controls         Hydrostatic HSD transmission automatically controls power and 2 speed         700 mm           Transmission controls         Hydrostatic HSD transmission automatically controls power and 2 speed         2W120           Drive system         Pour-wheel drive system         2W120         2W120           Drive system         Fourt         Environ         2W120         2W120								
Type         4-cycle water-cooled direct injection           Apprision         Tube branding           No of cylindres         4           See J1349/050 6249, net         69 KW (93 HP) at 2 100 min "(pm)           Brand dipblecement         100 min * 120 min           Brand dipblecement         100 min * 120 min           Batteries         1224-682 CGA, 158-min rated reserve           Ar celemer         Double stage dy type           POWER TRAIN         ZW100         ZW120           Travell speed         34.5 km/h with 12.5-25-4PPI tres         34.5 km/h with 12.5-25-4PPI tres           AxLE AND FINAL DRIVE         ZW120         ZW120           Travell speed         Four white         ZW120           Drove system         Four white for the fourt frame         Sectore travel           Point         Fixed to the fourt frame         Sectore travel           Point         Fixed to the fourt frame         Sectore travel           Point         Fixed to the fourt frame         ZW120           TIRES (tubeless, nylon body)         ZW100         ZW120           Standard         15-2-2-4PPI (L2)         ZW120           Standard         15-2-2-4PPI (L2)         ZW120           Standarg angle         Center plointo trave         Get	ENGINE	ZW100	ZW120					
Turbo charger           Appriation         4           Maximum power         SAE J1349/150 9249, net         69 KW (83 HP) at 2 100 min <sup>1</sup> (pm)         73 KW (86 HP) at 2 100 min <sup>1</sup> (pm)           Perior displacement         3.791         3.791         3.791           Batteries         172 kW (85 CCA, 159 min.rated reserve         2.791           Ar cleaner         Double stage dry type         2.802           POWER TRAIN         2.41700         2.4120           Transmission controls         Hydrostatic (HST) transmission automatically controls power and 2.592 repet         3.45 km/h with 15.5 2.52 SPR tires           ALE AND FINAL DRIVE         Z/4100         Z/4120           Drive system         Foord         Four-wheel drive system           Foord         Four-wheel drive system         3.45 km/h with 15.5 2.5 SPR tires           Oscillation angle         Load 2 (r12)         1.75 -55 12PR L2)           Drive system         Foord         Z/4100         Z/4120           Standard         15.5 2.5 SPR tires         Z/200         Z/4120           Standard         Standard         Standard         Standard         Standard           Stress Standard         Z/4100         Z/4120         Z/4120           Stress Standard         Standare standare standare sta								
No. of cylinders         4           Best-und advancement         3.78 W (86 HP) at 2 100 min "(rpm)           Bore and stoke         3.789 L           Pailon displacement         3.789 L           Bartenes         12V× 682 CCA, 159-min:ratid reserve           Dowles stage dry type         Dowles stage dry type           POWER TRAIN         ZW100         ZW120           Transmission controls         Hydrosticle (HST) transmission automatically controls power and 2-speed           Travel speed : Forward & Reverse         34.5 km/h with 15.5-25-8PR tree         34.5 km/h with 17.5-25-12PR tree           ALE AND FINAL DRIVE         ZW100         ZW120           Travel speed : Forward & Reverse         34.5 km/h with 15.5-25-8PR tree         34.5 km/h with 17.5-25-12PR tree           ALE AND FINAL DRIVE         ZW100         ZW120           Drive system         Ford         Ford frame           Ford         Ford sear ade         Gering tree           Deciliation argle         Flood to the ford frame           Final drives         Heavy-duty, planetary final drive           TIRES (tubbeless, nylon body)         ZW100         ZW120           Standard         15.5-25-48PR (L2)         17.5-25-12PR (L2)           Standard         15.5-25-48PR (L2)         17.5-25-12PR (L2)								
Maximum power         SAE J1349/ISO 8249, not         09 kW (83 HP) at 2100 mm / 120m         73 kW (84 HP) at 2100 mm / 120m           Piston diplocement         3.750 L         3.750 L           Bartanes         12V-682 CA, 159 min and reserve           All cleaner         2.750 L           POWER TRAIN         2.74100           Transmission controls         Hydrostatic (HS1) transmission automatically controls power and 2-speed           Transmission controls         Hydrostatic (HS1) transmission automatically controls power and 2-speed           ALLE AND FINAL DRIVE         2.74120           Prost         Four and 2-speed           Front         Four transmission automatically controls power and 2-speed           Prost         Four transmission automatically power speed transmission automatically controls power and 2-speed           Standard         15.25-8-RPR L/21         27/120           Standard         15.25-8-RPR L/21         17.5-25-127R L/21           Standard         15.25-8-RPR L/21         27/120           Standard         15.25-8-RPR L/21         17.5-25-127R L/21     <								
Bore and stroke 100 mm x 120 mm 200 mm x 120 mm x								
Pison diplocement 3,701   Batteries 12V 682 CCA, 159-mbi.rad reserve AAF  T2V 682 CCA, 159-mbi.rad reserve AAF  Table stage dry type  POWER TRAIN 2/V100 ZV120  Transmission.controls Hydrotatic (HST) transmission automatically controls power and 2-speed  AXE AND FINAL DRIVE 2/V100 ZV120  Drive system Four Float DRIVE 2/V100 ZV120  Drive system Four House A Reverse 34.5 km/h with 15.5 25-878 trise  AXE AND FINAL DRIVE 2/V100 ZV120  Drive system Four House A Reverse 34.5 km/h with 15.5 25-878 trise  Front Front Float DRIVE 2/V100 ZV120  Drive system Four Heavy-duty, planetary final drive  Rear Center privat  Center privat								
Batteries     12V-682 CCA, 159-min.rated reserve       Alir cleaner     Double stage dry type       POWER TRAIN     ZW100       Transmission controls     Hydrostale (HST) transmission automatically controls power and 2-speed       34.5 km/h with 15.5-25-8PR tires     34.6 km/h with 15.5-25-8PR tires       AXLE AND FINAL DRIVE     ZW100       Contrast     Four-white drive system       Ford     Four-white drive system       Ford     Four-white drive system       Rear     Conter priot       Daeillation angle     Total 24' (42')       Final drives     Heavy-duty, planetary final drive       TIRES (tubeless, nylon body)     ZW100     ZW120       Structa brakes     Inboard mounted fully hydraulic wet disk     Structa frame attering       Structa brakes     Conter priot     Conter priot       Structa brakes     Inboard mounted fully hydraulic wet disk     Structa frame attering       Structa brakes     Conter priot     ZW120       Structa brakes     Inboard mounted fully hydraulic wet disk     Structa frame attering       Structa brakes     Inboard mounted fully hydraulic wet disk     Structa frame attering       Structa brakes     Inboard mounted fully hydraulic wet disk     Structa frame attering       Structa brakes     Inboard mounted fully hydraulic wet disk     Structa frame attering								
Air cleaner         Double stage dry type           POWER TRAIN         ZW 100         ZW 120           Transmission controls         Hydrostatic (HST) transmission automaticatily controls power and 2-speed         34.5 km/h with 17.5-25-12PR times         34.5 km/h with 17.5-25-12PR times           AXLE AND FINAL DRIVE         ZW 100         ZW 120         ZW 120           Drive system         Four-wheel drive system         34.5 km/h with 17.5-25-12PR times         34.5 km/h with 17.5-25-12PR times           Front         Front         Four-wheel drive system         Semi-foating           Front         Front         Four-wheel drive system           Front         Front ande         Semi-foating           Geneter pixot         Center pixot         ZW 120           Standard         15.5-25-8PR (L2)         17.5-26-12PR (L2)           BRAKES         ZW 100         ZW 120           Standard         Ibboard mounted fully hydraulic wet disk           Parking brake         Spring applied hydraulic released wet disk           Steering angle         ZW 100         ZW 120           Type         Articulated frame steering           Steering angle         ZW 100         ZW 120           Cylinders         ZW 100         ZW 120           Type         Articu								
DWER TRAIN         2W100         2W120           Transmission controls         Hydrostatic (HST) transmission automatically controls power and 2-speed         34.5 km/h with 15.525-8PR tires         35.5 km/h with 15.525-8PR tires								
Transmission controls         Hydrostatic (HST) transmission automatically controls power and 2-speed           Transl speed : Forward & Reverse         34.5 km/h with 15.5-25-BPR tires         34.5 km/h with 17.5-25-12PR tires           AXLE AND FINAL DRIVE         ZW100         ZW120           Drive system         Four-wheel drive system         Semi-foating           Front         Four-wheel drive system         Semi-foating           Bear         Centre pixol         ZW120           Deaillation angle         total 24" (12")         Final drives           TIRES (tubeless, nylon body)         ZW100         ZW120           Standard         15.5-25-SPR (12)         17.5-25-12PR (12)           BRAKES         ZW100         ZW120           Standard         15.5-25-SPR (12)         17.5-25-12PR (12)           Type         Articulated frame steering           Steering mechanism         Full typicaulic power steering with orbitrof*           Steering angle         ZW100         ZW120           Vindera         Double-acting pixon type           No.x Bore Stroke         2 × 60 mm × 395 mm         2 × 60 mm × 395 mm           Maring muchanism         Full typicaulic power steering with orbitro*           Steering angle         ZW100         ZW120           Yuna dow								
Transmission controls         Hydrostatic (HST) transmission automatically controls power and 2-speed           Transl speed : Forward & Reverse         34.5 km/h with 15.5-25-BPR tires         34.5 km/h with 17.5-25-12PR tires           AXLE AND FINAL DRIVE         ZW100         ZW120           Drive system         Four-wheel drive system         Semi-foating           Front         Four-wheel drive system         Semi-foating           Bear         Centre pixol         ZW120           Deaillation angle         total 24" (12")         Final drives           TIRES (tubeless, nylon body)         ZW100         ZW120           Standard         15.5-25-SPR (12)         17.5-25-12PR (12)           BRAKES         ZW100         ZW120           Standard         15.5-25-SPR (12)         17.5-25-12PR (12)           Type         Articulated frame steering           Steering mechanism         Full typicaulic power steering with orbitrof*           Steering angle         ZW100         ZW120           Vindera         Double-acting pixon type           No.x Bore Stroke         2 × 60 mm × 395 mm         2 × 60 mm × 395 mm           Maring muchanism         Full typicaulic power steering with orbitro*           Steering angle         ZW100         ZW120           Yuna dow	POWER TRAIN	ZW100	ZW120					
Travel speed : Forward & Reverse         34.5 km/h with 15.5-25-8PR tree         34.5 km/h with 15.5-25-8PR tree           AXLE AND FINAL DRIVE         ZW100         ZW120           Drive system         Four-Wheel drive system         Semi-floating           Front & rear ade         Semi-floating         Semi-floating           Outling system         Four-wheel drive system         Conter privet           Oscillation angle         total 24* (12*)         Four-wheel drive system           TREE S(tubeless, nylon body)         ZW100         ZW120           Standard         15.5-25-8PR (L2)         17.5-25-12PR (L2)           BRAKES         ZW100         ZW120           Service brakes         Inboard mounted fully hydraulic wet disk           Parking brake         Spring applied hydraulic released wet disk           Steering angle         ZW100         ZW120           Steering angle         ZW100         ZW120           Cylinders         Dobubie-acting biston type         Spring applied hydraulic power sering with orbitol*           Steering angle         2 × 60 mm × 385 mm         2 × 60 mm × 395 mm           Cylinders         Dobubie-acting biston type         ZW100           Nox A Bore X broke         2 × 60 mm × 285 Mm         2 × 60 mm × 295 mm           HYDRAULIC SYSTEM<	-		natically controls power and 2-speed					
AXLE AND FINAL DRIVE         ZW100         ZW120           Drive system         Four-wheel drive system         Four-wheel drive system           Front & rear axie         Sami-floating         Four-wheel drive system           Fraid transe         Fixed to the front frame         Fixed to the front frame           Rear         Center pivot         Contal 24" (+12")           Final drives         Heavy-duty, planetary final drive         TIRES (tubeless, nylon body)         ZW100         ZW120           Standard         15.5-25-8PR (L2)         17.5-25-12PR (L2)         Standard           BRAKES         ZW100         ZW120         ZW120           Brakes         Inboard mounted fully hydraulic wet disk         Spring applied hydraulic released wet disk           Stering mechanism         Full hydraulic power steering with orbitrof"         ZW120           Steering mechanism         Full hydraulic power steering with orbitrof"         Steering maje           Oylinders         Double-acting ploton type         No. X Bor x Stroke         2 x 60 mm x 395 mm           Minimum turning madus at the centerline of outside tire         4 440 mm         4 690 mm x 395 mm           Minimum turning madus at the centerline of outside tire         2 x 60 mm x 50 mm         2 100 min (trym) at 20.6 MPa (210 kg/cm)           Mand Ducker are controlled by mec								
Drive system         Four-wheel         Free and three system           Front & rear axie         Semi-floating           Front & rear axie         Front & Terme           Rear         Center pivot           Occiliation angle         Iotal 24" (12")           Final drives         Heavy-duty, planetary final drive           TIRES (tubeless, nylon body)         2W100         2W120           Standard         15.5-25-38PR (I.2)         17.5-26-12PR (I.2)           BRAKES         2W100         2W120           Service brakes         Inboard mounted fully hydraulic wet disk           Parking brake         Spring applied hydraulic released wet disk           STEERING SYSTEM         ZW100         ZW120           Type         Articulated frame steering           Steering angle         Coulde-acting pison type           Opinders         Double-acting pison type           No. X Bor & Stroke         2 × 60 mm × 395 mm           Minimum turing raduus at the centerline of outside tire         4 440 mm           HYDRAULIC SYSTEM         ZW100         ZW120           Arm and bucket are controlled by mechanical single control lever         Zw100         ZW120           Arm and bucket are controlled by mechanical single control lever         Stering angle Cole MPa (210 kg/cm)								
Drive system         Four-wheel         Free and three system           Front & rear axie         Semi-floating           Front & rear axie         Front & Terme           Rear         Center pivot           Occiliation angle         Iotal 24" (12")           Final drives         Heavy-duty, planetary final drive           TIRES (tubeless, nylon body)         2W100         2W120           Standard         15.5-25-38PR (I.2)         17.5-26-12PR (I.2)           BRAKES         2W100         2W120           Service brakes         Inboard mounted fully hydraulic wet disk           Parking brake         Spring applied hydraulic released wet disk           STEERING SYSTEM         ZW100         ZW120           Type         Articulated frame steering           Steering angle         Coulde-acting pison type           Opinders         Double-acting pison type           No. X Bor & Stroke         2 × 60 mm × 395 mm           Minimum turing raduus at the centerline of outside tire         4 440 mm           HYDRAULIC SYSTEM         ZW100         ZW120           Arm and bucket are controlled by mechanical single control lever         Zw100         ZW120           Arm and bucket are controlled by mechanical single control lever         Stering angle Cole MPa (210 kg/cm)	AXLE AND FINAL DRIVE	ZW100	ZW120					
Front     Semi-floating       Pront     Fixed to the front frame       Rear     Certer pivot       Oscillation angle     total 24* (±12)       Final drives     Heavy-duty, plantary final drive       TIRES (tubeless, nylon body)       ZW100     ZW120       Standard     15.5-25.8PR (L2)     17.5-25-12PR (L2)       BRAKES       Service brakes     Inboard mounted tuly hydraulic wet disk       Parking brake     Spring applied hydraulic released wet disk       Steering applied hydraulic ower steering       Steering machanism     Full hydraulic power steering       Steering ngla     Each drinection 40°: total 80°       Cylinders     Double-acting piston type       No. x Bore x Stroke     2 × 60 mm × 395 mm       WHYDRAULIC SYSTEM     ZW100     ZW120       Arm controls     Four position valve; Raise, hold, lower, float       Bucket are controlled by mechanical single control lever     Four position valve; Raise, hold, lower, float       Arm controls     Two position valve; Roli back, dump       Main pump     (Load & steer)     2 00 min "(Ppi 10 L/min 2 100 min" (Ppi 10 L/min 2 100 min" A24 min Bucket 1 x 125 mm × 445 mm       Fillers     Full-thow 10 alor 10 alor     2 10 min" (Ppi 10 L/min 2 100 min" (Ppi 10 L/m		Four-wheel c	drive system					
Front Rear         Fixed to the front frame Center pixot           Occillation angle         Italia 24* (s12*)           Final drives         Heavy-duty, planetary final drive           TIRES (tubeless, nylon body)         ZW100         ZW120           Standard         15.5-25-8PR (L2)         17.5-25-12PR (L2)           BRAKES         ZW100         ZW120           Service brakes         Inboard mounted fully hydraulic wet disk           Parking brake         Spring applied hydraulic released wet disk           STEERING SYSTEM         ZW100         ZW120           Type         Articulated frame steering           Steering mechanism         Full hydraulic power steering with orbitrol®           Steering angle         Double-acting piston type           Vinders         Double-acting piston type           No. x Bore x Stroke         2 × 60 mm x 395 mm         2 × 60 mm x 395 mm           HYDRAULIC SYSTEM         ZW100         ZW120           Arm and bucket are controliked ty mechanical single control lever         Two position valve; Raise, hold, lower, float           Mariand Ducket are controliked ty mechanical single control lever         Two position valve; Raise, hold, lower, float           Marian ducket are controliked ty mechanical single control lever         Two position valve; Raise, hold, lower, float           <	Front & rear axle		,					
Rear         Center pivot           Oscillation angle         total 24" (±12")           Final drives         Heavy-duty, planetary final drive           TIRES (tubeless, nylon body)         ZW100         ZW120           Standard         15.5-25-8PR (L2)         17.5-25-12PR (L2)           BRAKES         ZW100         ZW120           Standard         15.5-25-8PR (L2)         17.5-25-12PR (L2)           BRAKES         ZW100         ZW120           Service brakes         Inboard mounted fully hydraulic wel disk           Parking brake         Spring applied hydraulic released wet disk           Steering angle         ZW100         ZW120           Vipe         Articulated frame steering         Steering angle           Cylinders         Double-acting piston type         Ox 100 mic Steering angle           Cylinders         2 × 60 mm × 395 mm         2 × 60 mm × 395 mm           HYDRAULIC SYSTEM         ZW100         ZW120           Arm and bucket are controlled by mechanical single control lever         Arm are bucket are controlled by mechanical single control lever           Arm controls         Four position valve: Rollse, hold, lower, float           Bucket domp         2 100 mic (prin) mic 20.6 MPa (210 kg/cm)           Hydraulic cycle times Arm raise         5.0 s			-					
Oscillation angle         total 24* (s12*)           Final drives         Heavy-duty, planetary final drive           TIRES (tubeless, nylon body)         ZW100         ZW120           Standard         15.5-25-8PR (L2)         17.5-25-12PR (L2)           BRAKES         ZW100         ZW120           Service brakes         Inboard mounted fully hydraulic wet disk           Parking brake         Spring applied hydraulic released wet disk           Steering machanism         Full hydraulic power steering with orbitrol®           Steering angle         Child hydraulic power steering with orbitrol®           Steering angle         Double-acting piston type           No. x Bore x Stroke         2 x 60 mm x 395 mm         2 x 60 mm x 395 mm           Mar and bucket are controlled by mechanical single control lever         Arm and bucket are controlled by mechanical single control lever           Arm and bucket are controlled by mechanical single control lever         2 x 60 mm x 205 mm         2 x 60 mm x 205 mm           Arm and bucket are controlled by mechanical single control lever         Arm 2 x 105 mm x 710 mm         2 t00 min "(pm) at 20.6 MPa (210 kg/cm)           Main pump         (Load & steer)         2 com arm of not bucket, double acting type         Arm 2 x 105 mm x 710 mm           Phydraulic cycle times Arm raise         5.0 s         5.7 s         5.0 s		Center	· pivot					
Final drives     Heavy-duty, planetary final drive       TIRES (tubeless, nylon body)     ZW100     ZW120       Standard     15.5-25-8PR (L2)     17.5-25-12PR (L2)       BRAKES     ZW100     ZW120       BRAKES     ZW100     ZW120       Service brakes     Inboard mounted fully hydraulic wet disk       Parking brake     Spring applied hydraulic released wet disk       STEERING SYSTEM     ZW100     ZW120       Type     Articulated frame steering       Steering mechanism     Full hydraulic power steering with orbitrol®       Steering machanism     Full hydraulic power steering with orbitrol®       Steering angle     Each direction 40°; total 80°       Cylinders     Double-acting piston type       No. x Bore x Stroke     2 x 60 mm x 395 mm       Minimum turning radius at the centerline of outside tire     4 440 mm       HYDRAULIC SYSTEM     ZW100     ZW120       Arm and bucket are controlled by mechanical single control lever     Four position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket controls     2 100 min "(pm) at 20.6 MPa (210 kg/fcm)       Yea data & steer)     2 100 min "xm x 24 0mm x 420 mm       Arm and bucket are controlled by mechanical single control     2 100 min "xm x 446 mm       Fuel flew resure setting     Arm	Oscillation angle		•					
Control         Control <t< td=""><td>Final drives</td><td>Heavy-duty, plar</td><td>netary final drive</td></t<>	Final drives	Heavy-duty, plar	netary final drive					
Control         Control <t< td=""><td></td><td></td><td></td></t<>								
Standard       15.5-25-8PR (L2)       17.5-25-12PR (L2)         BRAKES       ZW100       ZW120         Service brakes       Inboard mounted fully hydraulic wet disk         Parking brake       Spring applied hydraulic released wet disk         Steering machanism       Full hydraulic power steering with orbitof <sup>®</sup> Steering mechanism       Full hydraulic power steering with orbitof <sup>®</sup> Steering angle       Each direction 40°; total 80°         Cylinders       Double-acting piston type         No. x Bore x Stroke       2 × 60 mm × 395 mm         Minimum turning radius at the centerline of outside tire       4 440 mm         HYDRAULIC SYSTEM       ZW100       ZW120         Arm and bucket are controlled by mechanical single control lever       Arm controls       Two position valve; Roll back, dump         Bucket controls       Gear type 108 L/min       2 00 min "(pm) at 20.6 MPa (210 kgt/cm)       2 100 min "(pm) at 20.6 MPa (210 kgt/cm)         Hydraulic cylinders       Type       Two arm and one bucket, double acting type         No. x Bore       Arm: 2 × 90 mm × 760 mm       Arm: 2 × 90 mm × 760 mm         x Stroke       Full-100 min "(rpm) at 20.6 MPa (210 kgt/cm)       Ext 105 mm × 710 mm         Pilters       Full-100 min % 760 mm       Arm: 2 × 105 mm × 710 mm         Rarm lower <t< td=""><td>TIRES (tubeless, nylon body)</td><td>ZW100</td><td>ZW120</td></t<>	TIRES (tubeless, nylon body)	ZW100	ZW120					
Service brakes       Inboard mounted fully hydraulic wet disk         Parking brake       Spring applied hydraulic released wet disk         STEERING SYSTEM       ZW100       ZW120         Type       Articulated frame steering         Steering mechanism       Full hydraulic power steering with orbitrol®         Steering mechanism       Each direction 40°; total 80°         Opliders       Double-acting piston type         No. x Bore x Stroke       2 x 60 mm x 395 mm         No. x Bore x Stroke       2 x 60 mm x 395 mm         Minimum turming radius at the centerline of outside tire       4 440 mm         HYDRAULIC SYSTEM       ZW100       ZW120         Arm and bucket are controlled by mechanical single control lever       Four position valve; Rolb back, dump         Main pump       (Load & steer)       Gear type 108 L/min 2 100 min' (pm) at 20.6 MPa (210 kg/cm <sup>2</sup> )         Relief pressure setting       200 mm x 200 mm x 760 mm       Arm: 2 x 90 mm x 760 mm         No. x Bore       Arm: 2 x 90 mm x 760 mm       Arm: 2 x 105 mm x 710 mm         Stroke       S.0 s       5.7 s         Bucket dump       1.0 s       1.2 s         Fuel tank       130 L       150 L         Engine colant       1.0 s       1.2 s         Fuel tank       130 L	Standard	15.5-25-8PR (L2)	17.5-25-12PR (L2)					
Service brakes       Inboard mounted fully hydraulic wet disk         Parking brake       Spring applied hydraulic released wet disk         STEERING SYSTEM       ZW100       ZW120         Type       Articulated frame steering         Steering mechanism       Full hydraulic power steering with orbitrol®         Steering mechanism       Each direction 40°; total 80°         Opliders       Double-acting piston type         No. x Bore x Stroke       2 x 60 mm x 395 mm         No. x Bore x Stroke       2 x 60 mm x 395 mm         Minimum turming radius at the centerline of outside tire       4 440 mm         HYDRAULIC SYSTEM       ZW100       ZW120         Arm and bucket are controlled by mechanical single control lever       Four position valve; Rolb back, dump         Main pump       (Load & steer)       Gear type 108 L/min 2 100 min' (pm) at 20.6 MPa (210 kg/cm <sup>2</sup> )         Relief pressure setting       200 mm x 200 mm x 760 mm       Arm: 2 x 90 mm x 760 mm         No. x Bore       Arm: 2 x 90 mm x 760 mm       Arm: 2 x 105 mm x 710 mm         Stroke       S.0 s       5.7 s         Bucket dump       1.0 s       1.2 s         Fuel tank       130 L       150 L         Engine colant       1.0 s       1.2 s         Fuel tank       130 L	I							
Parking brake       Spring applied hydraulic released wet disk         STEERING SYSTEM       ZW100       ZW120         Type       Articulated frame steering         Steering angle       Each direction 40°; total 80°         Cylinders       Double-acting piston type         No. x Bore x Stroke       2 × 60 mm × 395 mm       2 × 60 mm × 395 mm         HYDRAULIC SYSTEM       2 × 60 mm × 395 mm       2 × 60 mm × 395 mm         HYDRAULIC SYSTEM       ZW100       ZW120         Arm and bucket are controlled by mechanical single control lever       Four position valve; Raise, hold, lower, float         Bucket controls       Two position valve; Raise, hold, lower, float         Bucket controls       Gear type 108 L/min         Parking by Coad & steer)       Gear type 108 L/min         Relief pressure setting       2.0.6 MPa (210 kg/cm <sup>2</sup> )         Hydraulic cylinders       Type         No. x Bore       Arm: 2 × 90 mm x 760 mm         x Stroke       5.0 s       5.7 s         Bucket dump       1.0 s       1.2 s         Fill-How 10 micron return filter before reservoir       1.0 s         Hydraulic cycle times Arm raise       5.0 s       5.7 s         Bucket dump       1.0 s       1.2 s         SERVICE REFILL CAPACITIES       Z	BRAKES	ZW100	ZW120					
STEERING SYSTEM     ZW100     ZW120       Type     Articulated frame steering       Steering mechanism     Full hydraulic power steering with orbitrol®       Steering angle     Each direction 40°; total 80°       Cylinders     Double-acting piston type       No. x Bore x Stroke     2 x 60 mm x 395 mm       Minimum turning radius at the centerline of outside tire     4 440 mm       HYDRAULIC SYSTEM     ZW100       Arm and bucket are controlled by mechanical single control lever     Arm controls       Arm controls     Four position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket tare controlide     Two position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket steering     2.00 min "(rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )       No. x Bore     Arm: 2 x 90 mm x 760 mm       No. x Bore	Service brakes	Inboard mounted fully hydraulic wet disk						
Type         Articulated frame steering           Steering mechanism         Full hydraulic power steering with orbitrol®           Steering angle         Each direction 40°; total 80°           Opuble-acting piston type         Double-acting piston type           No. x Bore x Stroke         2 × 60 mm × 395 mm         2 × 60 mm × 395 mm           HYDRAULIC SYSTEM         ZW100         ZW120           Arm and bucket are controlled by mechanical single control lever         Four position valve; Raise, hold, lower, float           Bucket controls         Two position valve; Raise, hold, lower, float           Bucket controls         Gear type 102 L/min 2 100 min °(rpm) at 20.6 MPa (210 kgt/cm²)         Gear type 117 L/min 2 100 min °(rpm) at 20.6 MPa (210 kgt/cm²)           Relief pressure setting         20.6 MPa (210 kgt/cm²)         2 100 min °(rpm) at 20.6 MPa (210 kgt/cm²)           Hydraulic cycle times Arm raise         5.0 s         5.7 s           No. x Bore x Stroke         Full-flow 10 micron return filter before reservoir           Hydraulic cycle times Arm raise         5.0 s         5.7 s           Electer REFILL CAPACITIES         ZW100         ZW120           Fuel tank         130 L         150 L           Engine colant         14 L         Engine colant         14 L           Front axle differential & wheel hubs         10 L <td>Parking brake</td> <td colspan="7">Spring applied hydraulic released wet disk</td>	Parking brake	Spring applied hydraulic released wet disk						
Type         Articulated frame steering           Steering mechanism         Full hydraulic power steering with orbitrol®           Steering angle         Each direction 40°; total 80°           Opuble-acting piston type         Double-acting piston type           No. x Bore x Stroke         2 × 60 mm × 395 mm         2 × 60 mm × 395 mm           HYDRAULIC SYSTEM         ZW100         ZW120           Arm and bucket are controlled by mechanical single control lever         Four position valve; Raise, hold, lower, float           Bucket controls         Two position valve; Raise, hold, lower, float           Bucket controls         Gear type 102 L/min 2 100 min °(rpm) at 20.6 MPa (210 kgt/cm²)         Gear type 117 L/min 2 100 min °(rpm) at 20.6 MPa (210 kgt/cm²)           Relief pressure setting         20.6 MPa (210 kgt/cm²)         2 100 min °(rpm) at 20.6 MPa (210 kgt/cm²)           Hydraulic cycle times Arm raise         5.0 s         5.7 s           No. x Bore x Stroke         Full-flow 10 micron return filter before reservoir           Hydraulic cycle times Arm raise         5.0 s         5.7 s           Electer REFILL CAPACITIES         ZW100         ZW120           Fuel tank         130 L         150 L           Engine colant         14 L         Engine colant         14 L           Front axle differential & wheel hubs         10 L <td>· · ·</td> <td></td> <td></td>	· · ·							
Steering mechanism       Full hydraulic power steering with orbitrol <sup>®</sup> Steering angle       Each direction 40°; total 80°         Cylinders       Double-acting piston type         No. x Bore x Stroke       2 × 60 mm × 395 mm         HYDRAULIC SYSTEM       2 × 60 mm × 395 mm         Arm and bucket are controlled by mechanical single control lever       Atm and bucket are controlled by mechanical single control lever         Arm controls       Four position valve; Raise, hold, lower, float         Bucket controls       Two position valve; Roll back, dump         Main pump       (Load & steer)       2 100 min"(rpm) at 20.6 MPa (210 kgf/cm)         Relief pressure setting       20.6 MPa (210 kgf/cm)       2 100 min"(rpm) at 20.6 MPa (210 kgf/cm)         Hydraulic cylinders       Type       Two arm and one bucket, double acting type         No. x Bore       Arm: 2 × 90 mm × 760 mm       Bucket : 1 × 128 mm × 445 mm         Filters       Full-flow 10 micron return filter before reservoir         Hydraulic cycle times Arm raise       5.0 s       5.7 s         Bucket dump       1.0 s       1.2 s         SERVICE REFILL CAPACITIES       ZW100       ZW120         Fuel tank       130 L       150 L         Engine colant       14 L       Engine colant         Front axie differential & whe	STEERING SYSTEM	ZW100	ZW120					
Steering angle       Each direction 40°; total 80°         Cylinders       Double-acting piston type         No. x Bore x Stroke       2 × 60 mm x 395 mm       2 × 60 mm x 395 mm         Minimum turning radius at the centerline of outside tire       4 440 mm       4 690 mm         HYDRAULIC SYSTEM       ZW100       ZW120         Arm and bucket are controlled by mechanical single control lever       Four position valve; Raise, hold, lower, float         Bucket controls       Two position valve; Roll back, dump         Main pump       (Load & steer)       Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>-1</sup> )       2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>-1</sup> )         Relief pressure setting       Arm: 2 × 90 mm x 760 mm Bucket : 1 x 110 mm x 421 mm       Arm: 2 × 105 mm x 710 mm Bucket : 1 x 120 mm x 710 mm Bucket : 1 x 120 mm x 245 mm         Filters       Full-flow 10 micron return filter before reservoir       5.7 s         Arm lower       3.0 s       2.7 s         Bucket dump       1.0 s       1.2 s         Stroke       ZW100       ZW120         Fuel tank       130 L       150 L         Engine coolant       14 L         Engine coolant       14 L         Front axie differential & wheel hubs       10 L       14 L         Hydraulic reservoir tank       75 L	Туре	Articulated fr	ame steering					
Cylinders         Double-acting piston type           No. x Bore x Stroke         2 × 60 mm x 395 mm         2 × 60 mm x 395 mm           Minimum turning radius at the centerline of outside tire         4 440 mm         4 690 mm           HYDRAULIC SYSTEM         ZW100         ZW120           Arm and bucket are controlled by mechanical single control lever         Four position valve; Raise, hold, lower, float           Bucket controls         Four position valve; Roll back, dump           Main pump         (Load & steer)         2 (00 min <sup>2</sup> (rpm) at 20.6 MPa (210 kgt/cm <sup>2</sup> )           Relief pressure setting         20.6 MPa (210 kgt/cm <sup>2</sup> )         2 (10 min <sup>2</sup> (rpm) at 20.6 MPa (210 kgt/cm <sup>2</sup> )           No. x Bore         X Stroke         Arm: 2 × 90 mm × 760 mm         Arm: 2 × 105 mm × 710 mm           Stroke         Full-flow 10 micron return filter before reservoir         Hydraulic cycle times Arm raise         5.0 s         5.7 s           Arm lower         3.0 s         2.7 s         Bucket dump         1.0 s         1.2 s           SERVICE REFILL CAPACITIES         ZW100         ZW120         ZW120           Fuel tank         130 L         150 L         Engine colant           Engine colant         14 L         Engine oil         14 L           Front axie differential & wheel hubs         10 L         14 L	Steering mechanism	Full hydraulic power s	teering with orbitrol <sup>®</sup>					
No. x Bore x Stroke       2 × 60 mm × 395 mm       2 × 60 mm × 395 mm         Minimum turning radius at the centerline of outside tire       4 440 mm       4 690 mm         HYDRAULIC SYSTEM       ZW100       ZW120         Arm and bucket are controlled by mechanical single control lever       Four position valve; Raise, hold, lower, float         Bucket controls       Four position valve; Raise, hold, lower, float         Bucket controls       Two position valve; Raise, hold, lower, float         Bucket controls       Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Relief pressure setting       20.6 MPa (210 kgf/cm <sup>2</sup> )         Hydraulic cylinders       Type         No. x Bore x Stroke       Arm: 2 × 90 mm × 760 mm Bucket : 1 × 100 mm × 710 mm Bucket : 1 × 125 mm × 445 mm         Filters       Full-flow 10 micron return filter before reservoir         Hydraulic cycle times Arm raise       5.0 s         Arm lower       3.0 s       2.7 s         Bucket dump       1.0 s       1.2 s         Fuel tank       130 L       150 L         Engine colant       14 L         Engine oil       18 L         Front axie differential & wheel hubs       10 L       14 L         Hydraulic reservoir tank       10 L       14 L         Hydraulic reservoir tank	Steering angle	Each direction	40°; total 80°					
Minimum turning radius at the centerline of outside tire     4 440 mm     4 690 mm       HYDRAULIC SYSTEM     ZW100     ZW120       Arm and bucket are controlled by mechanical single control lever     Four position valve; Roll back, dump       Arm controls     Four position valve; Roll back, dump       Bucket controls     Two position valve; Roll back, dump       Main pump     (Load & steer)     Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>3</sup> )       Relief pressure setting     20.6 MPa (210 kgf/cm <sup>3</sup> )       Hydraulic cylinders     Type     Two arm and one bucket, double acting type       No. x Bore x Stroke     Arm: 2 × 90 mm × 760 mm     Arm: 2 × 105 mm × 710 mm       Bucket current     Stroke     5.7 s       Arm lower     3.0 s     2.7 s       Bucket dump     1.0 s     1.2 s       SERVICE REFILL CAPACITIES     ZW100     ZW120       Fuel tank     130 L     150 L       Engine oil     14 L       Front axe differential & wheel hubs     10 L     14 L       Rear axle differential & wheel hubs     10 L     14 L       Hydraulic cerviori tank     75 L     80 L	Cylinders	Double-acting	g piston type					
HYDRAULIC SYSTEM     ZW100     ZW120       Arm and bucket are controlled by mechanical single control lever     Four position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Raise, hold, lower, float       Bucket controls     Two position valve; Roll back, dump       Main pump     (Load & steer)     Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )       Relief pressure setting     20.6 MPa (210 kgf/cm <sup>2</sup> )     2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )       Hydraulic cylinders     Type     Two arm and one bucket, double acting type       No. x Bore     Arm: 2 x 90 mm x 760 mm 8 Ucket : 1 x 100 mm x 421 mm     Bucket : 1 x 125 mm x 445 mm       Filters     Full-flow 10 micron return filter before reservoir       Hydraulic cycle times Arm raise     5.0 s     5.7 s       Arm lower     3.0 s     2.7 s       Bucket dump     1.0 s     1.2 s	No. x Bore x Stroke	2 × 60 mm × 395 mm	2 × 60 mm × 395 mm					
Arm and bucket are controlled by mechanical single control lever         Arm and bucket are controlled by mechanical single control lever         Arm controls       Four position valve; Raise, hold, lower, float         Bucket controls       Two position valve; Roll back, dump         Main pump       (Load & steer)       Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )       Gear type 117 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Relief pressure setting       0.06 MPa (210 kgf/cm <sup>2</sup> )       Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Hydraulic cylinders       Type       Two arm and one bucket, double acting type         No. x Bore x Stroke       Arm: 2 x 90 mm x 760 mm Bucket : 1 x 110 mm x 421 mm       Arm: 2 x 105 mm x 710 mm Bucket : 1 x 125 mm x 445 mm         Filters       Full-flow 10 micron return filter before reservoir       Hydraulic cycle times Arm raise       5.0 s       5.7 s         Arm lower       3.0 s       2.7 s       S       12 s         SERVICE REFILL CAPACITIES       ZW100       ZW120         Fuel tank       130 L       150 L         Engine coolant       14 L       Engine coolant         Engine colant       18 L       170 L       14 L         Rear axle differential & wheel hubs       10 L       14 L       14 L         Hydraulic reservoir	Minimum turning radius at the centerline of outside tire	4 440 mm	4 690 mm					
Arm and bucket are controlled by mechanical single control lever         Arm and bucket are controlled by mechanical single control lever         Arm controls       Four position valve; Raise, hold, lower, float         Bucket controls       Two position valve; Roll back, dump         Main pump       (Load & steer)       Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )       Gear type 117 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Relief pressure setting       0.06 MPa (210 kgf/cm <sup>2</sup> )       Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Hydraulic cylinders       Type       Two arm and one bucket, double acting type         No. x Bore x Stroke       Arm: 2 x 90 mm x 760 mm Bucket : 1 x 110 mm x 421 mm       Arm: 2 x 105 mm x 710 mm Bucket : 1 x 125 mm x 445 mm         Filters       Full-flow 10 micron return filter before reservoir       Hydraulic cycle times Arm raise       5.0 s       5.7 s         Arm lower       3.0 s       2.7 s       S       12 s         SERVICE REFILL CAPACITIES       ZW100       ZW120         Fuel tank       130 L       150 L         Engine coolant       14 L       Engine coolant         Engine colant       18 L       170 L       14 L         Rear axle differential & wheel hubs       10 L       14 L       14 L         Hydraulic reservoir								
Arm controls       Four position valve; Raise, hold, lower, float         Bucket controls       Two position valve; Roll back, dump         Main pump       (Load & steer)       Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )       Gear type 117 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Relief pressure setting       20.6 MPa (210 kgf/cm <sup>2</sup> )       Gear type 117 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Hydraulic cylinders       Type       Two arm and one bucket, double acting type         No. x Bore       Arm: 2 x 90 mm x 760 mm x Stroke       Arm: 2 x 105 mm x 710 mm Bucket : 1 x 110 mm x 421 mm         Filters       Full-flow 10 micron return filter before reservoir         Hydraulic cycle times Arm raise       5.0 s       5.7 s         Arm lower       3.0 s       2.7 s         Bucket dump       1.0 s       1.2 s         SERVICE REFILL CAPACITIES       ZW100       ZW120         Fuel tank       130 L       150 L         Engine coolant       14 L       Engine coolant         Engine oil       18 L         Front axle differential & wheel hubs       10 L       14 L         Hydraulic reservoir tank       75 L       80 L	HYDRAULIC SYSTEM	ZW100	ZW120					
Bucket controls         Two position valve; Roll back, dump           Main pump         (Load & steer)         Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Gear type 117 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )           Relief pressure setting         20.6 MPa (210 kgf/cm <sup>2</sup> )         2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )           Hydraulic cylinders         Type         Two arm and one bucket, double acting type           No. x Bore x Stroke         Arm: 2 × 90 mm × 760 mm Bucket : 1 × 110 mm × 421 mm         Arm: 2 × 105 mm × 710 mm Bucket : 1 × 125 mm × 445 mm           Filters         Full-flow 10 micron return filter before reservoir         Hydraulic cycle times Arm raise         5.0 s         5.7 s           Arm lower         3.0 s         2.7 s         Bucket dump         1.0 s         1.2 s           SERVICE REFILL CAPACITIES         ZW100         ZW120           Fuel tank         130 L         150 L           Engine coolant         14 L           Engine oil         18 L           Front axle differential & wheel hubs         10 L         14 L           Hydraulic reservoir tank         75 L         80 L	Arm and bucket are controlled by mechanical single controlled	trol lever						
Main pump       (Load & steer)       Gear type 108 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )       Gear type 117 L/min 2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Relief pressure setting       20.6 MPa (210 kgf/cm <sup>2</sup> )       2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )         Hydraulic cylinders       Type       Two arm and one bucket, double acting type         No. x Bore       Arm: 2 × 90 mm × 760 mm       Arm: 2 × 105 mm × 710 mm         x Stroke       Full-flow 10 micron return filter before reservoir         Hydraulic cycle times Arm raise       5.0 s       5.7 s         Arm lower       3.0 s       2.7 s         Bucket dump       1.0 s       1.2 s         SERVICE REFILL CAPACITIES       ZW100       ZW120         Fuel tank       130 L       150 L         Engine coolant       14 L       18 L         Front axle differential & wheel hubs       10 L       14 L         Hydraulic reservoir tank       75 L       80 L	Arm controls	Four position valve; Ra	aise, hold, lower, float					
Man pump(Load & steer)2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )Relief pressure setting20.6 MPa (210 kgf/cm <sup>2</sup> )2 100 min <sup>-1</sup> (rpm) at 20.6 MPa (210 kgf/cm <sup>2</sup> )Hydraulic cylindersTypeTwo arm and one bucket, double acting typeNo. x Bore x StrokeArm: 2 × 90 mm × 760 mm Bucket : 1 × 110 mm × 421 mmArm: 2 × 105 mm × 710 mm Bucket : 1 × 125 mm × 445 mmFiltersFull-flow 10 micron return filter before reservoirHydraulic cycle timesArm raise5.0 s5.7 sArm lower3.0 s2.7 sBucket dump1.0 s1.2 sSERVICE REFILL CAPACITIESFuel tank130 L150 LEngine coolant14 LEngine oil18 LFront axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L	Bucket controls		· · ·					
Relief pressure setting       2 100 min (rpm) at 20.6 MPa (210 kgr/cm <sup>2</sup> )       2 100 min (rpm) at 20.6 MPa (210 kgr/cm <sup>2</sup> )         Hydraulic cylinders       Type       2 100 min (rpm) at 20.6 MPa (210 kgr/cm <sup>2</sup> )         Hydraulic cylinders       Type       Two arm and one bucket, double acting type         No. x Bore       Arm: 2 × 90 mm × 760 mm       Arm: 2 × 105 mm × 710 mm         Bucket : 1 × 110 mm × 421 mm       Bucket : 1 × 125 mm × 445 mm         Filters       Full-flow 10 micron return filter before reservoir         Hydraulic cycle times       Arm raise       5.0 s       5.7 s         Arm lower       3.0 s       2.7 s       2.7 s         Bucket dump       1.0 s       1.2 s         SERVICE REFILL CAPACITIES         Fuel tank       130 L       150 L         Engine coolant       14 L         Engine oil       10 L       14 L         Regine oil       10 L       14 L         Rear axle differential & wheel hubs       10 L       14 L         Hydraulic reservoir tank       75 L       80 L	Main pump (Load & steer)							
Hydraulic cylinders       Type       Two arm and one bucket, double acting type         No. x Bore       Arm: 2 x 90 mm x 760 mm       Arm: 2 x 105 mm x 710 mm         Stroke       Bucket : 1 x 110 mm x 421 mm       Bucket : 1 x 125 mm x 445 mm         Filters       Full-flow 10 micron return filter before reservoir         Hydraulic cycle times       Arm raise       5.0 s       5.7 s         Arm lower       3.0 s       2.7 s         Bucket dump       1.0 s       1.2 s         SERVICE REFILL CAPACITIES       ZW100       ZW120         Fuel tank       130 L       150 L         Engine coolant       14 L       150 L         Front axle differential & wheel hubs       10 L       14 L         Rear axle differential & wheel hubs       10 L       14 L         Hydraulic reservoir tank       75 L       80 L			(1) (0)					
No. x Bore x StrokeArm: 2 × 90 mm × 760 mm Bucket : 1 × 110 mm × 421 mmArm: 2 × 105 mm × 710 mm Bucket : 1 × 125 mm × 445 mmFiltersFull-flow 10 micron return filter before reservoirHydraulic cycle times Arm raise5.0 s5.7 sArm lower3.0 s2.7 sBucket dump1.0 s1.2 sSERVICE REFILL CAPACITIESZW100ZW120Fuel tank130 L150 LEngine coolant14 LEngine oil10 L14 LFront axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L								
x StrokeBucket : 1 × 110 mm × 421 mmBucket : 1 × 125 mm × 445 mmFiltersFull-flow 10 micron return filter before reservoirHydraulic cycle times Arm raise5.0 s5.7 sArm lower3.0 s2.7 sBucket dump1.0 s1.2 sSERVICE REFILL CAPACITIESZW100ZW120Fuel tankEngine coolant14 LEngine oil10 L14 LFront axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L								
FiltersFull-flow 10 micron return filter before reservoirHydraulic cycle times Arm raise5.0 s5.7 sArm lower3.0 s2.7 sBucket dump1.0 s1.2 sSERVICE REFILL CAPACITIESZW100ZW120ERVICE REFILL CAPACITIESImage: Service Refile Capacity of the service of the serv								
Hydraulic cycle times Arm raise5.0 s5.7 sArm lower3.0 s2.7 sBucket dump1.0 s1.2 sSERVICE REFILL CAPACITIESZW100ZW120Fuel tank130 L150 LEngine coolant14 LEngine oil18 LFront axle differential & wheel hubs10 L14 LRear axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L								
Arm lower3.0 s2.7 sBucket dump1.0 s1.2 sSERVICE REFILL CAPACITIESZW100ZW120Fuel tank130 L150 LEngine coolant14 LEngine oil18 LFront axle differential & wheel hubs10 L14 LRear axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L								
Bucket dump       1.0 s       1.2 s         SERVICE REFILL CAPACITIES       ZW100       ZW120         Fuel tank       130 L       150 L         Engine coolant       14 L       150 L         Engine oil       10 L       14 L         Front axle differential & wheel hubs       10 L       14 L         Hydraulic reservoir tank       75 L       80 L								
SERVICE REFILL CAPACITIESZW100ZW120Fuel tank130 L150 LEngine coolant14 LEngine oil18 LFront axle differential & wheel hubs10 L14 LRear axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L								
Fuel tank130 L150 LEngine coolant14 LEngine oil18 LFront axle differential & wheel hubs10 L14 LRear axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L	Buoker dump							
Fuel tank130 L150 LEngine coolant14 LEngine oil18 LFront axle differential & wheel hubs10 L14 LRear axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L	SERVICE REFILL CAPACITIES	ZW100	ZW120					
Engine coolant     14 L       Engine oil     18 L       Front axle differential & wheel hubs     10 L     14 L       Rear axle differential & wheel hubs     10 L     14 L       Hydraulic reservoir tank     75 L     80 L	Fuel tank							
Engine oil     18 L       Front axle differential & wheel hubs     10 L     14 L       Rear axle differential & wheel hubs     10 L     14 L       Hydraulic reservoir tank     75 L     80 L	Engine coolant							
Rear axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L	Engine oil							
Rear axle differential & wheel hubs10 L14 LHydraulic reservoir tank75 L80 L	Front axle differential & wheel hubs							
	Rear axle differential & wheel hubs	10 L	14 L					
Orbitrol <sup>®</sup> is a registered trademark of Char-Lynn.	Hydraulic reservoir tank							
	Orbitrol <sup>®</sup> is a registered trademark of Char-Lynn.	1						

### STANDARD AND OPTIONAL EQUIPMENT

Section	Components	ZW100	ZW120
Cabs			
	ROPS/FOPS cab	0	0
Front a	attachments		
	High lift arm	●	●
	Quick coupler (hydraulic/mechanical)		
	Lift arm kickout		
	Bucket cylinder rod guard		
Forks			
	Lumber fork (pin/coupler)		
	Lumber fork (pin) for high lift arm		
Underc	arriage		
	Torque proportioning differential (TPD)	0	0
	Limited slip differential (LSD)		
	Electric parking brake	0	0
	Emergency steering system		
	Underguard		●
	Ride control		
Miscell	aneous		
	Wide fin radiator		●
	Suction fan & radiator dust screen		●
	Precleaner		●
	Backup buzzer	0	0
	Loud backup buzzer		
	Rear under-mirror		
	Anti-corrosive paint		
	(pipes & electric wiring connectors)	•	
	Double fuel filters	0	0
	Air cleaner for double elements	0	0
	Lifting lugs		
	Full rear fender		
	Large capacity alternator	0	0
	Air condenser dust screen		

Section	Components	ROPS/FOP Cab
Operat	or station	Oub
	Matching control	
	Speed selector (at low speed)	0
	Throttle limiter	
	Full auto air conditioner	0
	Seat belt (2 inches)*	0
	Seat belt (3 inches)*	•
	Tiltable steering column	0
	Sun visor	0
	AM/FM stereo radio	0
	Ashtray, cigar lighter	×
	Drink holder	0
	Large tray	Ō
	Hot & cool box	Ö
	Front windshield wiper	_
	(2-speed, intermittent) w/washer	
	Rear windshield wiper w/washer	0
	Floor mat	Ō
	Quick shift switch (QSS)	Õ
	Implement lever lock	Ö
	Forward/rearward lever lock	Ŏ
	Hazard lamp	0
	Working light switch	Ö
	Door locks (inside/out)	Ö
	Room mirrors (2)	Ö
	Outer mirror	0
	12-V PTO (power take off)	
	Immobilizer	
Onerat	or seat	•
opora	Mechanical suspension seat (cloth-covered)	0
	Mechanical suspension seat (vinyl-covered)	•
	Air suspension seat w/headrest	ě
	Fixed seat (vinyl-covered)	
Lights		
Lights	Headlights	
	Rear combination lamps	0
	Backup light	0
	Front working lights (2)	0
	Extra front working lights (2) mounted on cab	
	Rear working lights (2) built in rear grille	0
	Extra rear working lights (2) built in real grine	
vaives,	levers (cable-operated) 2-spool valve w/mono lever	
	3-spool valve w/mono lever + 1 lever	
Valvas	4-spool valve w/mono lever + 1 lever	
vaives,	levers (pilot-controlled)	
	2-spool valve w/mono lever	
	3-spool valve w/mono lever + 1 lever	
0. / .	4-spool valve w/mono lever + 1 lever	
lopal	e-service	

These specifications are subject to change without notice.

Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in colour and features. Before use, read and understand the Operator's Manual for proper operation.

Hitachi Construction Machinery Australia Pty., Ltd. www.hitachicm.com.au

KL-EN033Q