

Engine Power

**71** kW (95hp)

Operating Weight

**7** ton

Bucket Capacity

**1.3-1.6** m<sup>3</sup>

WHEEL LOADER

**50ZV**



**Kawasaki**

# 50ZV OPERATING SPECIFICATIONS

## Engine

Make & model	CUMMINS "B4.5T" diesel engine
Type	4-cycle, water-cooled, direct injection, with turbocharger
Rated power	Gross 74 kW(99 hp)/2,100 rpm Net 71 kW(95 hp)/2,100 rpm
Maximum torque	Gross 409 N·m(41.7 kgf·m)/1,500 rpm
Number of cylinders (bore X stroke)	4 102 mm X 138 mm
Total displacement	4.50 lit
Cooling type	Pusher type fan Pressurized radiator
Fuel injection pump	Delphy type
Governor	All-speed mechanical type
Air cleaner	Dry type(Double element)
Generator	AC 24V 1.2 kW(50 ampere)
Starter motor	DC 24V 3.7 kW(5 hp)
Batteries	DC 12V 65 Ah X 2

## Transmission & Torque converter

Transmission make & type	Kawasaki, Full power shift		
Torque converter make & type	Kawasaki 3-element, one-stage, one-phase		
Traveling speed		Forward	Reverse
	1st	8.5 km/h	8.5 km/h
	2nd	16.0 km/h	16.0 km/h
	3rd	34.0 km/h	34.0 km/h
	Note	With 16.9(L2)	

## Axles & Final Drives

Type	4-wheel drive
Axle make & type	Kawasaki Semi-floating type
Differential gear	Spiral bevel gear, torque proportioning, single stage reduction
Final reduction gear	Inboard mounted, Internal planetary gear
Rear axle oscillation angle	±12°
Tire(standard)	16.9(L2) Tubeless

## Brake system

Service brake	4-wheel wet-disc Controlled by fully hydraulic system Dual circuits
Parking brake	Mechanical type located on front driveline

## Steering system

Type	Articulated frame steering, hydraulic power steering unit, direct operated type
Steering valve	Orbitroll
Steering angle	40° to each side

## Loading system

Type	Front end loading, Z bar linkage system	
Hydraulic cycle time	Lifting(at full load)	5.4 sec
	Lowering(empty)	2.8 sec
	Dumping	1.0 sec
	Total cycle time	9.2 sec

## Hydraulic system

Oil pump	Loading & Steering pump	Gear type, 100 lit/min 6.9 MPa(70 kg/cm <sup>2</sup> ) @ 2,100 rpm
Lift cylinder	type number,bore x stroke	Double acting piston 2 X 100 mm bore X 593 mm stroke
Tilt cylinder	type number,bore x stroke	Double acting piston 1 X 100 mm bore X 462 mm stroke
Steering cylinder	type number,bore x stroke	Double acting piston 2 X 60 mm bore X 340 mm stroke
Relief set pressure	Control valve Steering valve	20.6 MPa(210 kg/cm <sup>2</sup> ) 17.2 MPa(175 kg/cm <sup>2</sup> )







## Service refill

Fuel tank	120 lit
Engine lubricant(including oil pan)	10 lit
Engine cooling water	42 lit
T/M & T/C	20 lit
Axle front/rear	36 lit
Brake equipment	2 lit
Hydraulic system(including oil tank)	75 lit

## Weight change

Option item	Operating weight(kg)	Tipping load(kg)		Overall width(mm) (outside tire)	Overall height(mm)	Overall length(mm)
		Straight	Full turn			
ROPS/FOPS cab	+470	+360	+320	-	+95	-
Open ROPS/FOPS canopy	+200	+160	+130	-	+95	-
Enclosed steel cab	+300	+250	+200	-	+95	-
Removal open canopy	-50	-40	-40	-	-115	-
Tires	15.5-25-8PR (L2)	+80	+60	+50	-75	±0
	15.5-25-12PR (L2)	+80	+60	+50	-75	±0
	16.9-24-10PR (L2)	±0	±0	±0	±0	±0
Air conditioner	+70	+60	+50	-	-	-
Additional counter weight	+310	+690	+590	-	-	+50

## Bucket

			Standard boom			High lift boom		Super high lift boom
			General purpose		Light material	Light material	Loose material	Light material
			Bolt-on edges	Teeth	Bolt-on edges	Bolt-on edges	Bolt-on edges	Bolt-on edges
			GSC	GST	LSC	GSC	HSC	HSC
								
Bucket capacity	heaped	m <sup>3</sup>	1.3	1.2	1.6	1.3	1.1	1.1
	struck	m <sup>3</sup>	1.1	1.0	1.4	1.1	0.9	0.9
Max. dumping clearance		mm	2,720	2,635	2,655	3,020	3,085	3,685
Max. dumping reach		mm	935	990	1,000	945	880	905
Max. hinge pin height		mm	3,470			3,770		4,370
Digging depth (with bucket level)		mm	75	90	75	75	75	75
Breakout force		kN	63.7	70.6	56.8	63.7	71.5	71.5
Bucket tilt-back angle	at carry position	deg	50°			49°		48°
Overall length		mm	6,045	6,155	6,140	6,335	6,245	6,845
Overall height	up to cab top	mm	2,990					
	bucket full raise	mm	4,520	4,520	4,620	4,820	4,700	5,335
Overall width	outside tire	mm	2,270					
	outside bucket	mm	2,350	2,350	2,450	2,350	2,350	2,350
Tread		mm	1,820					
Wheel base		mm	2,600					
Min. turning radius	at outside bucket	mm	5,180	5,220	5,250	5,295	5,270	5,325
	at center of outside tire	mm	4,480					
Min. ground		mm	375					
Full articulation angle		deg	40°					
Operating weight	with canopy	kg	6,710	6,680	6,760	6,790	6,760	6,900
Static tipping load	straight	kg	5,200	5,220	5,120	4,400	4,430	3,370
	full turn	kg	4,460	4,480	4,380	3,660	3,690	2,630

The weight and load figure includes 16.9 (L2) tubeless tire, canopy, lubricant, coolant, full fuel tank and operator.

## Bucket selection charts

