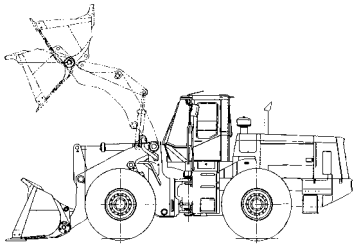
ONE FOCUS. COMPLETE SOLUTIONS

90ZV

Kawasaki

90ZV BUCKET DATA



			Standard Boom			High Lift Boom		
			General Purpose		Material Handling	General Purpose		Material Handling
			Straight Edge With Bolt-on Cutting Edge	Straight Edge With Teeth	Straight Edge With Bolt-on Cutting Edge	With Bolt-on Cutting Edge	With Teeth	With Bolt-on Cutting Edge
Capacity	Heaped	yd^3 (m^3)	5.2 (4.0)	5.0 (3.8)	5.9 (4.5)	4.6 (3.5)	4.3 (3.3)	5.2 (4.0)
	Struck	yd^3 (m^3)	4.4 (3.4)	4.2 (3.2)	5.1 (3.9)	3.9 (3.0)	3.6 (2.8)	4.4 (3.4)
Maximum dumping clearance		ft-in (mm)	10'3 1/4" (3130)	9'10 5/16" (3005)	9'11 7/8" (3045)	12'2 1/4" (3715)	11'9 9/16" (3595)	11'11 11/16" (3650)
Dumping reach (to front of bucket edge or tooth)		ft-in (mm)	3'10 7/16" (1180)	4'1 5/8" (1260)	4'1 5/8" (1260)	3'8 11/16" (1135)	4'1/16" (1220)	3'11 7/16" (1205)
Bucket hinge pin height		ft-in (mm)	14'3 5/8" (4360)	14'3 5/8" (4360)	14'3 5/8" (4360)	16'1/8" (4880)	16'1/8" (4880)	16'1/8" (4880)
Digging depth		ft-in (mm)	2 9/16" (65)	3 3/4" (95)	2 9/16" (65)	2 9/16" (65)	3 3/4" (95)	2 9/16" (65)
Breakout force		lb (kg)	46,300 (21,000)	50,090 (22,720)	42,620 (19,330)	49,960 (22,660)	54,430 (24,690)	46,210 (20,960)
Bucket tilt-back angle	at ground level		41°	41°	41°	41°	41°	41°
	at carry position		50°	50°	50°	48°	48°	48°
Overall	Length	ft-in (mm)	28'6 1/2" (8700)	29'1/4" (8845)	28'11 1/16" (8815)	29'10 7/8" (9115)	30'4 9/16" (9260)	30'2 13/16" (9215)
	Height	ft-in (mm)	11'7 3/16" (3535)	11'7 3/16" (3535)	11'7 3/16" (3535)	11'7 3/16" (3535)	11'7 3/16" (3535)	11'7 3/16" (3535)
	Width (outside tire)	ft-in (mm)	9'7 3/8" (2930)	9'7 3/8" (2930)	9'7 3/8" (2930)	9'7 3/8" (2930)	9'7 3/8" (2930)	9'7 3/8" (2930)
	Width (outside bucket)	ft-in (mm)	10'2 1/16" (3100)	10'2 13/16" (3120)	10'2 1/16" (3100)	10'2 1/16" (3100)	10'2 13/16" (3120)	10'2 1/16" (3100)
Wheel base		ft-in (mm)	11'1 7/8" (3400)	11'1 7/8" (3400)	11'1 7/8" (3400)	11'1 7/8" (3400)	11'1 7/8" (3400)	11'1 7/8" (3400)
Minimum turning radius	at outside bucket	ft-in (mm)	22'5 5/16" (6840)	22'7 1/4" (6890)	22'6 11/16" (6875)	23'3/4" (7030)	23'2 15/16" (7085)	23'2 1/8" (7065)
	at center of outside tire	ft-in (mm)	19'3/8" (5800)	19'3/8" (5800)	19'3/8" (5800)	19'3/8" (5800)	19'3/8" (5800)	19'3/8" (5800)
Minimum ground clearance		ft-in (mm)	20 1/4" (515)	20 1/4" (515)	20 1/4" (515)	20 1/4" (515)	20 1/4" (515)	20 1/4" (515)
Full articulation angle		degree	40°	40°	40°	40°	40°	40°
Operating weight (with ROPS Cab)		lb (kg)	51,320 (23,280)	51,010 (23,140)	51,760 (23,480)	51,810 (23,500)	51,500 (23,360)	51,960 (23,570)
Static Tipping Load (with ROPS cab)	Straight	lb (kg)	39,980 (18,135)	40,390 (18,320)	39,280 (17,815)	33,380 (15,140)	33,770 (15,320)	33,110 (15,020)
	Full turn	lb (kg)	34,250 (15,535)	34,600 (15,695)	33,650 (15,265)	28,590 (12,970)	28,950 (13,130)	28,370 (12,870)

The weight and load figure includes optional counterweight, enclosed ROPS Cab, air conditioner, 26.5 x 25-20PR (L-3) tires, full fuel tank and operator.

OPERATING SPECIFICATIONS

WEIGHTS AND DIMENSIONS (SUPPLEMENTAL DATA)

		Operating Weight	Tipping Load			Overall Width (Outside Tire)	Tread	Vertical Dimensions	Overall Length
			Straight	Full Turn					
Remove ROPS Cab (for transport only)	lb (kg)	-1100 (-500)	-990 (-450)	-860 (-390)	in (mm)			-6 7/8" (-175)	
Remove Optional Counterweight	lb (kg)	-790 (-360)	-2030 (-920)	-1740 (-790)	in (mm)				-3 15/16" (-100)
Tires: 26.5-25-20PR (L-2)	lb (kg)	-400 (-180)	-310 (-140)	-265 (-120)	in (mm)				
26.5-25-20PR (L-4)	lb (kg)	+1060 (+480)	+790 (+360)	+670 (+305)	in (mm)				
26.5-25-20PR (L-5)	lb (kg)	+1850 (+840)	+1380 (+625)	+1180 (+535)	in (mm)				
26.5-25 (75% $CaCl_2$)	lb (kg)	+3220 (+1460)	+4810 (+2180)	+4120 (+1870)	in (mm)				
Air conditioner—Deletion	lb (kg)	-220 (-100)	-240 (-110)	-220 (-100)	in (mm)				
Belly Guard (rear frame)	lb (kg)	+410 (+185)	+600 (+270)	+510 (+230)	in (mm)				

Base Tire 26.5-25-20PR (L-3)

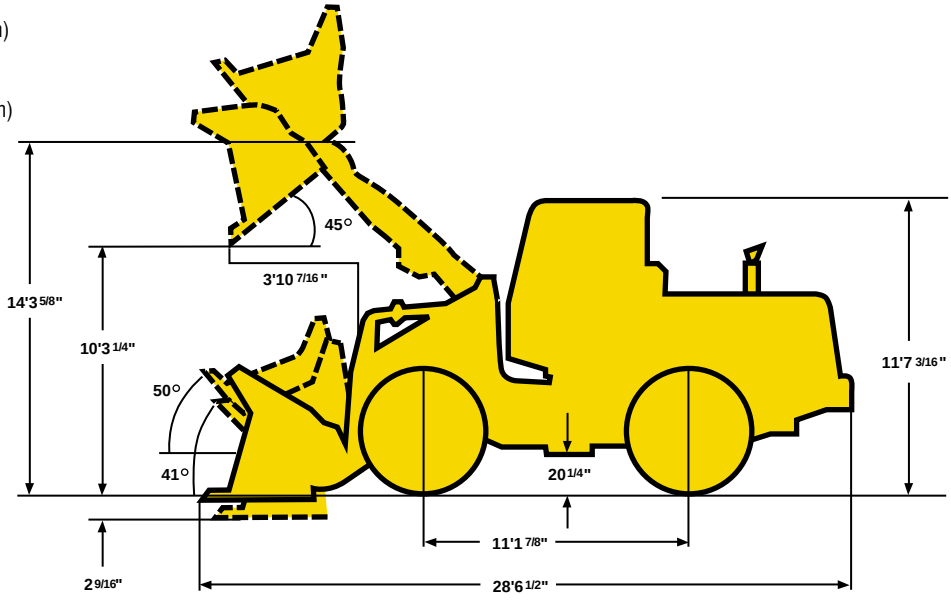
Tread . . . . . .7'3 13/16" (2230mm)

Width (outside tire) . . . . . .9'7 3/8" (2930mm)

Width (outside bucket) . . . . .10'2 1/16" (3100mm)

Equipped with GSC bucket with bolt-on cutting edge, optional counterweight

26.5-25-20PR (L-3) Tire and ROPS Cab



90ZV

OPERATING SPECIFICATIONS

ENGINE

Make/Model/Fuel Type	Cummins/QSM11/Diesel
Type	4-cycle, watercooled, direct injection type with turbo charger and air-cooled intercooler
Net flywheel horsepower	275HP/2100 RPM
Maximum torque	919 ft/lb @ 1400 RPM
Number of cylinders	6
Bore and stroke	4.921" x 5.787" (125mm x 147.1mm)
Total displacement	660 in^3 (10,830 cm^3)
Alternator	AC24V–1800W (75 amp)
Starting motor	24V–7.3kw (9.8HP)
Battery	12V–150AH, 2 units
Governor	All-speed, electrical type

TORQUE CONVERTER AND TRANSMISSION

Torque converter	3 elements, single stage, 1-phase
Torque stall ratio	3.16:1
Main clutches	Wet hydraulic, multi-disk type
Cooling method	Forced circulation type
Transmission	Full powershift, 4 forward, 4 reverse with automatic mode (2nd–4th) with downshift switch for 2nd–1st downshifting.
Speeds Forward	1st: 4.4 MPH (7.1 km/hr) 2nd: 7.7 MPH (12.4 km/hr) 3rd: 13.5 MPH (21.8 km/hr) 4th: 21.1 MPH (34.0 km/hr)
Speeds Reverse	1st: 4.8 MPH (7.8 km/hr) 2nd: 8.3 MPH (13.4 km/hr) 3rd: 14.6 MPH (23.5 km/hr) 4th: 21.7 MPH (35.0 km/hr)

SERVICE REFILL CAPACITY

LOCATION	CAPACITY: Gallons	Liters
Engine (coolant)	15.9	(60)
Fuel tank (diesel fuel)	87.2	(330)
Engine oil (oil pan)	9.0	(34)
Front axle (gear oil)	19.5	(74)
Rear axle (gear oil)	21.1	(80)
Torque converter and transmission (engine oil)	15.9	(60)
Hydraulic system (including tank hydraulic oil)	68.7	(260)

HYDRAULIC AND STEERING SYSTEM

Steering type		Articulated frame steering
Steering mechanism		Hydraulic power steering unit, pilot operated type
Lift (boom) cylinder		Two (2) double-acting piston type: 6.69" x 34.02" (170mm x 864mm)
Tilt (bucket) cylinder		Two (2) double-acting piston type: 5.51" x 24.57" (140mm x 624mm)
Steering cylinder		Two (2) double-acting piston type: 3.94" x 17.72" (100mm x 450mm)
Steering oil pump		Gear type: 59.7 GPM @ 2100 RPM (226 LPM @ 2100 RPM)
Main oil pump		Gear type: 37.8 GPM @ 2100 RPM (143 LPM @ 2100 RPM)
Pilot oil pump		Gear type: 27.2 GPM @ 2100 RPM (103 LPM @ 2100 RPM)
Relief valve set pressure	Loading	3000 psi (210 kg/cm^2)
	Steering	3000 psi (210 kg/cm^2)
HYDRAULIC CYCLE TIME*		
Lifting time (at full load)		6.1 sec.
Lowering time (empty)		3.0 sec.
Bucket dumping time		1.6 sec.
TOTAL		10.7 sec.

* Measured in accordance with SAE J732C

AXLE SYSTEM

Drive system		4-wheel drive
Front and rear axle		Full floating banjo type
Tires	Standard	26.5 x 25-20PR (L-3)
	Optional	26.5 x 25-20PR (L-2) (L-4) (L-5) 26.5 x R25 (Radial)
Reduction and differential gear		Spiral bevel/gear, 1 stage reduction torque proportioning
Final reduction gear		Outboard mounted, internal planetary gear
Oscillation angle		±12° (total 24°)

BRAKE SYSTEM

Service brakes	4 wheel, adjustment free, wet multiple disk brake. Controlled by full hydraulic system Dual circuit.
Parking/Emergency brake	Spring applied oil released type, located in front driveline.