



# 42ZV-2

45HP | .78 y<sup>3</sup> BUCKET  
CAPACITY

# 45ZV-2

61HP | 1.18 y<sup>3</sup> BUCKET  
CAPACITY



## RUGGED AND DEPENDABLE

### 42ZV-2

- ▶ Wrap-around counterweight lowers the center of gravity increasing stability
- ▶ Universal Quick Coupler allows a wide range of attachments
- ▶ Interchangeable with skid steer attachments
- ▶ Limited Slip Differentials provide additional traction for applications requiring extreme traction control
- ▶ Bucket Leveler
- ▶ Reliable Kubota Engines, supported locally
- ▶ Third spool hydraulics, standard
- ▶ High Ground Speed, standard

### 45ZV-2

- ▶ Wrap-around counterweight lowers the center of gravity increasing stability
- ▶ Eco Mode provides a fuel efficient setting resulting in better fuel economy without affecting productivity
- ▶ Electronically controlled HST stabilizes engine speeds providing smooth acceleration and deceleration
- ▶ Manually Locking Front Differential, option
- ▶ Bucket Leveler
- ▶ Reliable Kubota Engines, supported locally
- ▶ Third spool hydraulics, standard
- ▶ Easy access to cab on both sides of machine
- ▶ High Ground Speed, standard



The commitment of KCMA Corporation to the North American market is significant. With manufacturing facilities in the US and Japan, KCM has the experience and technology to design, engineer, manufacture, and service your next wheel loader. The KCM team is focused on wheel loaders. Flexibility, responsiveness and ease of doing business are foundations of that commitment.

- Carefully designed programs and services
- Engineered specialty applications packages
- Extensive training at the KCMA Training Center and at customer and dealer locations
- Flexible warranty programs
- Fully equipped, in-house rebuild center
- 24-hour parts shipments
- Lean and focused North American operations
- Solid Partnerships with knowledgeable, experienced, independent dealers

Comprehensive solutions, quality products that are up to the task as well as up to your expectations, a track record of raising the bar without exception—it's the KCMA difference on which you have come to depend!

### SERVING THE NORTH AMERICAN MARKET SINCE 1978

- 17 models, 45 HP to 720 HP



# POWER AND PERFORMANCE PROVIDE UNMATCHED PRODUCTIVITY

## SAFETY

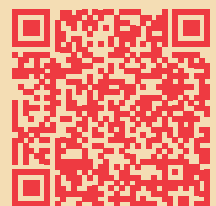
- ROPS/FOPS Cab provides a safe operator environment (Optional)
- Rubber mounted cab reduces noise and vibration (Optional)
- Automatic Parking Brake—Parking brake automatically engages when the engine stops
- Shift Lever Lock prevents accidental lever engagement while the engine is running **5**
- Hydraulic Control Lever Locks **4**
- Locking Fuel Tank
- Locking Engine Cover
- Neutral Engine Start
- Cold Weather Start
- Turn Signals, standard

## OPERATOR COMFORT

- Easy access to cab on both sides of machine **1**
- Easy-read monitor provides operating data at a glance
- Excellent visibility—Pillar-less design offers unobstructed visibility **2**
- Eco Mode, Reduces fuel consumption (45ZV-2 Std.) **3**
- Rubber mounted cab reduces noise and vibration (Optional)
- Suspension Seats
- Mirrors, Wipers
- Coat Hook
- Cup Holder
- Radio Ready



Watch them  
in Action





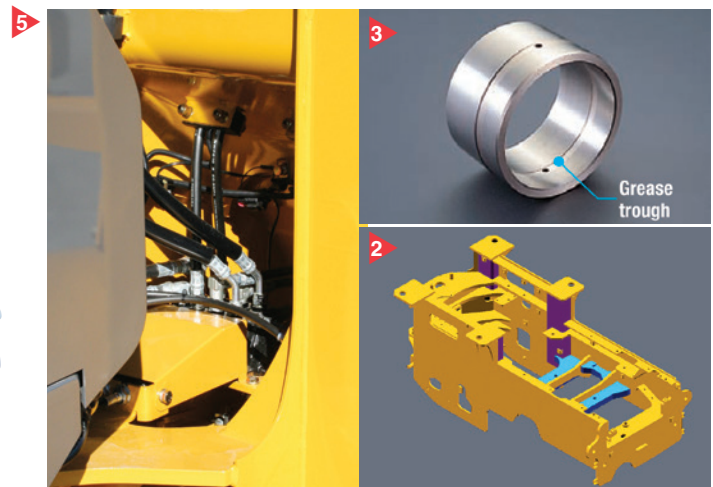
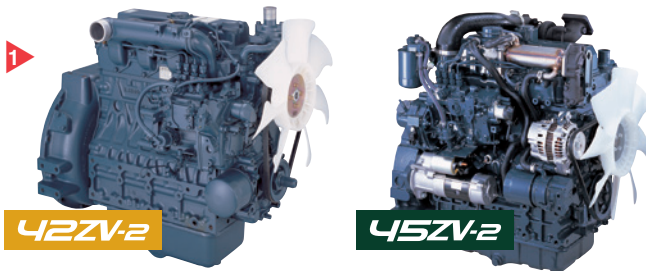
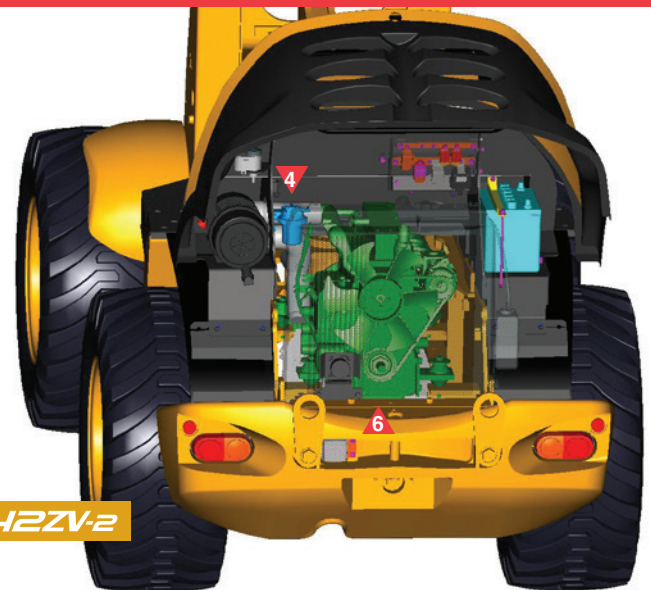
# ACCESSIBILITY, SERVICEABILITY, DURABILITY

## ACCESSIBILITY/SERVICEABILITY

- Easy access engine compartment — Pneumatic “One touch” access
- Easy access to filters, drains and fittings
- Remote rear axle trunnion grease application

## DURABILITY

- Tier 4 Interim Emissions Compliant Kubota Engine **1**
- Heavy box frame **2**
- Innovative HN Bushing technology extends lubrication intervals **3**
- Fuel filter has built-in water separator **4**
- Limited Slip Differentials provide additional traction for applications requiring extreme traction control (42ZV-2 Standard)
- Manually Locking Front Differential (45ZV-2 Option)
- Easy access to filters, drains, and fittings **5**
- Side-by-Side Aluminum radiator and aluminum oil cooler provide easy access for maintenance and cleaning **6**



Quick Coupler and Third Spool Hydraulics are standard on both the 42ZV-2 and 45ZV-2. The 42ZV-2 features a universal coupler, standard, and the 45ZV-2 offers a universal coupler, optional, to utilize skid-steer attachments.



## FAILURE IS NOT AN OPTION.

KCMA is dedicated to keeping your wheel loader up and running, even in the most challenging situations. Starting with the KLEW (KCMA Loaders Early Warning) Oil Analysis System, designed to eliminate unnecessary maintenance and downtime, to our 24-hour parts shipment service, and our extensive rebuild program, KCMA has the expertise and experience to respond quickly to your needs.

*KCMA and their dealer organization offer comprehensive support and service programs designed to keep you on the job.*

# 42ZV-2 / 45ZV-2

## OPERATING SPECIFICATIONS

ENGINE		
	42ZV-2	45ZV-2
Gross Power (SAE J1995)	45.7 HP/2400 RPM	63 HP/2200 RPM
Net Power (SAE J1349)	45 HP/2400 RPM	61 HP/2200 RPM
Make/Model	Kubota V2403-MDI	Kubota V3307-DI-TI
Type	4-cycle, watercooled, in-line direct injection	4-cycle, watercooled, in-line direct injection
Number of cylinders	4	4
Bore and stroke	3.43" x 4.03" (87mm x 102.4mm)	3.70" x 4.72" (94mm x 120mm)
Total displacement	148 in <sup>3</sup> (2.4 L)	203 in <sup>3</sup> (3.3 L)
Alternator	AC12V-2.0kw (60A)	AC12V-3.0kw (80A)
Battery	12V-52AH (490 CCA), 1 unit	12V-65AH (620 CCA), 1 unit

TRANSMISSION		
	42ZV-2	45ZV-2
Type	Electrically controlled hydrostatic transmission	Electrically controlled hydrostatic transmission
Pump	Variable load sensing bi-directional piston-type	Variable load sensing bi-directional piston-type
Motor	Automatic piston-type	Automatic piston-type
Cooling method	Air-to-oil cooled	Air-to-oil cooled
Control method	Fingertip operated single transmission control lever	Fingertip operated single transmission control lever
Speeds	Forward	10.5 MPH (17 km/hr)
	Reverse	10.5 MPH (17 km/hr)
		1st: 7.4 MPH (12 km/hr) 2nd: 21.1 MPH (34 km/hr)
		1st: 7.4 MPH (12 km/hr) 2nd: 21.1 MPH (34 km/hr)

SYSTEMS CAPACITY				
	42ZV-2		45ZV-2	
LOCATION	Gallons	Liters	Gallons	Liters
Engine (coolant)	1.7	6.5	2.6	10
Fuel tank (diesel fuel)	11.7	45	21.7	82
Engine oil (oil pan)	2.0	7.5	3.0	11
Front axle (gear oil)	1.2	4.5	1.6	6.2
Rear axle (gear oil)	1.2	4.5	1.7	6.4
Transmission & Hydraulic System (hydraulic oil)	9.9	38	19.3	73
Reduction gear box (gear oil)	0.5	2.0	0.3	1.0

HYDRAULIC AND STEERING SYSTEM			
		42ZV-2	45ZV-2
Steering type		Articulated frame steering	Articulated frame steering
Steering mechanism		Hydraulic power steering	Hydraulic power steering
Lift (boom) cylinder		Two (2) double-acting piston type: 2.76" x 20.91" (70mm x 531mm)	Two (2) double-acting piston type: 3.35" x 21.73" (85mm x 552mm)
Tilt (bucket) cylinder		One (1) double-acting piston type: 2.76" x 17.72" (70mm x 450mm)	One (1) double-acting piston type: 3.15" x 17.99" (80mm x 457mm)
Steering cylinder		One (1) double-acting piston type: 2.36" x 8.98" (60mm x 228mm)	Two (2) double-acting piston type: 1.77" x 13.39" (45mm x 340mm)
Main/steering oil pump		Gear type: 14.0 GPM @ 2400 RPM (52.7 LPM @ 2400 RPM)	Gear type: 21.0 GPM @ 2200 RPM (80.3 LPM @ 2200 RPM)
Relief valve: set pressure	Main	3000 PSI (210 kgf/cm <sup>2</sup> )	3000 PSI (210 kgf/cm <sup>2</sup> )
	Steering	2500 PSI (175 kgf/cm <sup>2</sup> )	2500 PSI (175 kgf/cm <sup>2</sup> )
HYDRAULIC CYCLE TIME*			
Lifting time (at full load)		4.5 sec.	5.0 sec.
Lowering time (empty)		3.0 sec.	3.5 sec.
Bucket dumping time		1.0 sec.	1.0 sec.
TOTAL		8.5 sec.	9.5 sec.


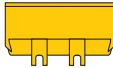
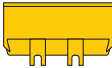
\* Measured in accordance with SAE J732C

AXLE SYSTEM		
	42ZV-2	45ZV-2
Drive system	4-wheel drive	4-wheel drive
Front and rear axle	Semi-floating type	Semi-floating type
Tires	15.5/60-18 8PR	17.5/65-20 10PR
Reduction and differential gear	Spiral bevel gear, 1 stage reduction, limited slip type	Spiral bevel gear, 1 stage reduction, conventional type
Final reduction gear	Internal planetary gear inboard mounted	Internal planetary gear inboard mounted
Oscillation angle	±8	±11

BRAKE SYSTEM		
	42ZV-2	45ZV-2
Service/Parking brakes	Internal wet disc in reduction gear box	Internal wet disc in front axle

# 42ZV-2 / 45ZV-2

## BUCKET DATA

			42ZV-2		45ZV-2	
			Standard Boom/General Purpose			
			Straight Edge With Bolt-on Cutting Edge 		Straight Edge With Bolt-on Cutting Edge 	
Capacity	Heaped	yd <sup>3</sup> (m <sup>3</sup> )	.78 (.60)	1.0 (.76)	1.18 (.90)	1.0 (.76)
	Struck	yd <sup>3</sup> (m <sup>3</sup> )	.68 (.52)	.81 (.62)	.95 (.73)	.81 (.62)
Maximum dumping clearance		ft-in (mm)	7' 9 <sup>3</sup> / <sub>4</sub> " (2,380)	7' 5 <sup>3</sup> / <sub>4</sub> " (2,280)	7' 10" (2,390)	7' 9 <sup>7</sup> / <sub>8</sub> " (2,385)
Dumping reach (to front of bucket edge or tooth)		ft-in (mm)	3' 3 <sup>1</sup> / <sub>4</sub> " (995)	3' 7 <sup>1</sup> / <sub>4</sub> " (1,100)	3' 4" (990)	3' 4" (1,015)
Bucket hinge pin height		ft-in (mm)	10' 3 <sup>5</sup> / <sub>8</sub> " (3,140)	10' 3 <sup>5</sup> / <sub>8</sub> " (3,140)	10' 4 <sup>3</sup> / <sub>8</sub> " (3,160)	10' 4 <sup>3</sup> / <sub>8</sub> " (3,160)
Digging depth		ft-in (mm)	2" (50)	2" (50)	2.65" (65)	2" (50)
Breakout force		lb (kg)	5,500 (2,515)	4,550 (2,065)	8,280 (3,755)	7,475 (3,390)
Bucket tilt-back angle	at ground level		47°	47°	41°	41°
	at carry position		55°	55°	49°	49°
Overall	Length	ft-in (mm)	16' 1 <sup>7</sup> / <sub>8</sub> " (4,925)	16' 9 <sup>1</sup> / <sub>8</sub> " (5,110)	17' 8" (5,380)	17' 9" (5,410)
	Height (ROPS Cab)	ft-in (mm)	8' 4 <sup>3</sup> / <sub>4</sub> " (2,560)	8' 4 <sup>3</sup> / <sub>4</sub> " (2,560)	9' 4 <sup>1</sup> / <sub>4</sub> " (2,850)	9' 4 <sup>1</sup> / <sub>4</sub> " (2,850)
	Height (ROPS Cab W/HVAC)	ft-in (mm)	8' 6 <sup>1</sup> / <sub>8</sub> " (2,595)	8' 6 <sup>1</sup> / <sub>8</sub> " (2,595)	9' 5 <sup>5</sup> / <sub>8</sub> " (2,885)	9' 5 <sup>5</sup> / <sub>8</sub> " (2,885)
	Height (Open ROPS)	ft-in (mm)	8' 5" (2,565)	8' 5" (2,565)	9' 4 <sup>5</sup> / <sub>8</sub> " (2,860)	9' 4 <sup>5</sup> / <sub>8</sub> " (2,860)
	Width (outside tire)	ft-in (mm)	5' 5 <sup>3</sup> / <sub>8</sub> " (1,660)	5' 5 <sup>3</sup> / <sub>8</sub> " (1,660)	6' 3 <sup>5</sup> / <sub>8</sub> " (1,920)	6' 3 <sup>5</sup> / <sub>8</sub> " (1,920)
	Width (outside bucket)	ft-in (mm)	5' 6 <sup>1</sup> / <sub>2</sub> " (1,690)	5' 6 <sup>1</sup> / <sub>2</sub> " (1,690)	6' 5 <sup>5</sup> / <sub>16</sub> " (1,990)	6' 5 <sup>5</sup> / <sub>16</sub> " (1,990)
Wheel base		ft-in (mm)	6' 3 <sup>1</sup> / <sub>16</sub> " (1,850)	6' 3 <sup>1</sup> / <sub>16</sub> " (1,850)	7' 2 <sup>5</sup> / <sub>8</sub> " (2,200)	7' 2 <sup>5</sup> / <sub>8</sub> " (2,200)
Minimum turning radius	at outside bucket	ft-in (mm)	12' 8 <sup>3</sup> / <sub>8</sub> " (3,870)	12' 11 <sup>1</sup> / <sub>2</sub> " (3,950)	14' 10 <sup>3</sup> / <sub>4</sub> " (4,540)	14' 11 <sup>1</sup> / <sub>8</sub> " (4,550)
	at center of outside tire	ft-in (mm)	10' 3" (3,125)	10' 3" (3,125)	12' 5 <sup>3</sup> / <sub>8</sub> " (3,795)	12' 5 <sup>3</sup> / <sub>8</sub> " (3,795)
Minimum ground clearance		ft-in (mm)	12" (304)	12" (304)	13 <sup>3</sup> / <sub>8</sub> " (340)	13 <sup>3</sup> / <sub>8</sub> " (340)
Full articulation angle		degree	41°	41°	40°	40°
Operating weight (with ROPS Cab)		lb (kg)	9,250 (4,195)	9,510 (4,315)	12,220 (5,540)	12,435 (5,640)
Static Tipping Load (with ROPS cab)	Straight	lb (kg)	5,840 (2,650)	5,445 (2,470)	8,470 (3,840)	8,700 (3,945)
	Full turn	lb (kg)	4,760 (2,160)	4,400 (1,995)	7,170 (3,250)	7,320 (3,320)

The weight and load figures include counterweight, coupler, GP Bucket, 15.5/60-18 tires (42ZV-2), 17.5/65-20 (45ZV-2) tires, enclosed ROPS Cab, full fuel tank and operator.

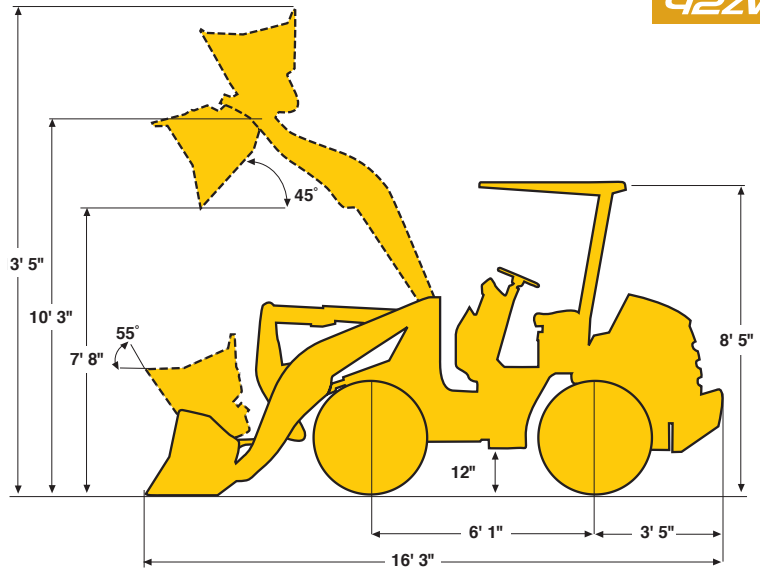
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# 42ZV-2 / 45ZV-2

## OPERATING SPECS

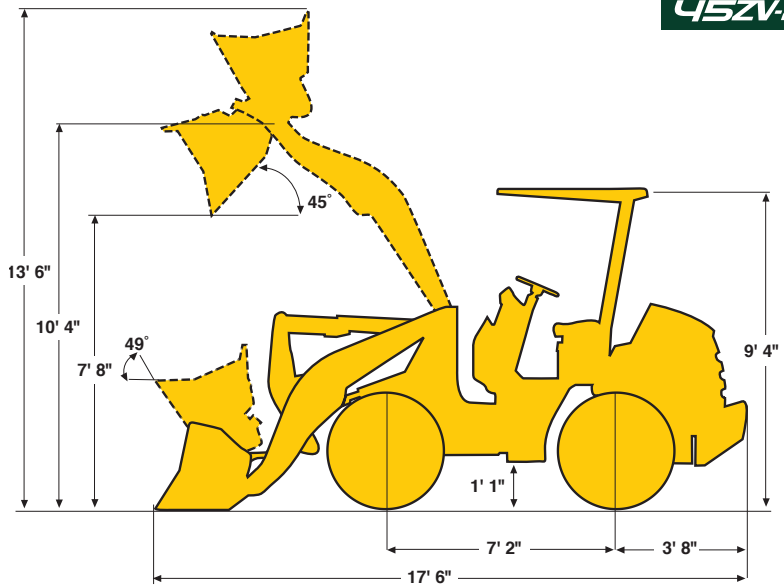
**42ZV-2**

Tread . . . . . 4'15/8" (1,260mm)  
 Width (outside tire) . . . . . 5'53/8" (1,660mm)  
 Width (outside bucket) . . . . . 5'61/2" (1,690mm)  
 Equipped with GSC bucket with bolt on cutting edge  
 15.5/60-18 tires

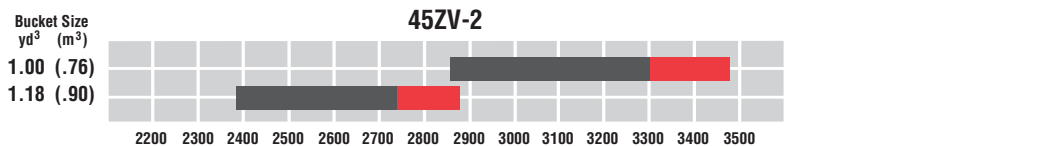
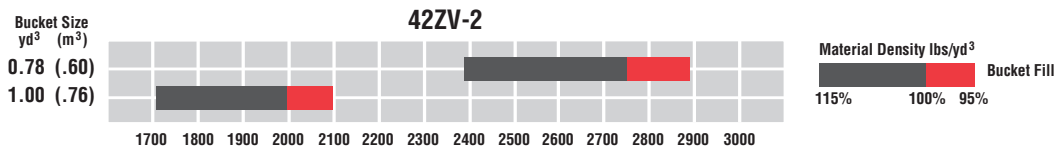


**45ZV-2**

Tread . . . . . 4'97/8" (1,470mm)  
 Width (outside tire) . . . . . 6'35/8" (1,920mm)  
 Width (outside bucket) . . . . . 6'55/16" (1,990mm)  
 Equipped with GSC bucket with bolt on cutting edge  
 17.5/65-20 tires




## BUCKET SELECTION CHARTS





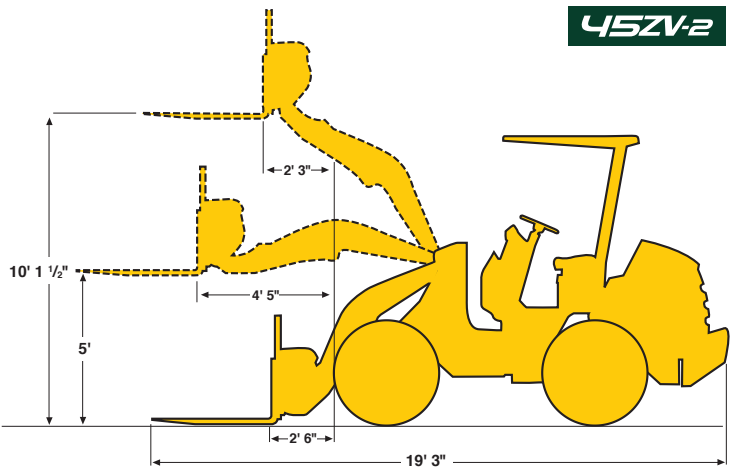
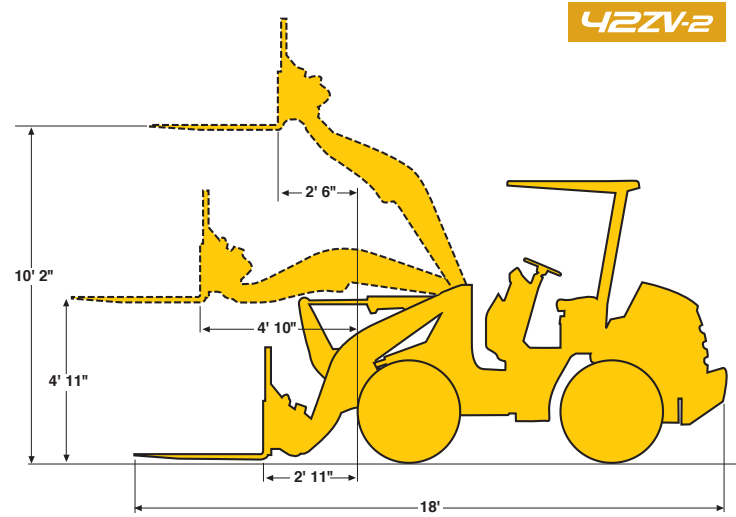
# 42ZV-2 / 45ZV-2

## FORK DATA

		42ZV-2		45ZV-2	
		ft-in (mm)	48" (1,219)	48" (1,219)	ft-in (mm)
Fork Tine Length	ft-in (mm)	48" (1,219)	48" (1,219)	ft-in (mm)	2' 11" (895)
Reach @ Ground Level	ft-in (mm)	4' 10" (1,475)	4' 5" (1,340)	ft-in (mm)	2' 6" (755)
Maximum Reach	ft-in (mm)	2' 6" (750)	2' 3" (680)	ft-in (mm)	4' 11" (1,505)
Reach @ Max Hinge Pin Height	ft-in (mm)	10' 2" (3,105)	10' 11/2" (3,090)	ft-in (mm)	4' 11" (1,505)
Fork Height @ Max Reach	ft-in (mm)	4,350 (1,975)	6,280 (2,850)	ft-in (mm)	10' 2" (3,105)
Fork Height @ Max Hinge Pin Height	ft-in (mm)	3,570 (1,620)	5,310 (2,410)	ft-in (mm)	10' 11/2" (3,090)
Straight Tip Load with Level Arms and Fork (load centered @ 24")	lb (kg)	2,160 (980)	3,240 (1,470)	ft-in (mm)	13' 8" (4,165)
Full Turn Tip Load with Level Arms and Fork (load centered @ 24")	lb (kg)	8,960 (4,065)	12,100 (5,490)	ft-in (mm)	19' 3" (5,860)
Max Operating Load	lb (kg)	359 (163)	685 (310)	ft-in (mm)	8' 5" (2,565)
Fork Attachment Weight	lb (kg)	8,960 (4,065)	12,100 (5,490)	ft-in (mm)	9' 4" (2,860)
Operating Weight	lb (kg)	5' 5 3/8" (1,690)	6' 3 5/8" (1,920)	ft-in (mm)	13' 8" (4,165)
Mimumum turning radius (at outside tire)	ft-in (mm)	18'	19' 3"	ft-in (mm)	14' 10"
Overall	Length	ft-in (mm)	18' (5,475)	ft-in (mm)	19' 3" (5,860)
	Height	ft-in (mm)	8' 5" (2,565)	ft-in (mm)	9' 4" (2,860)
	Width (outside tire)	ft-in (mm)	5' 5 3/8" (1,690)	ft-in (mm)	6' 3 5/8" (1,920)

The weight and load figures include counterweight, coupler, 48" forks, 15.5/60-18 tires (42ZV-2), 17.5/65-20 (45ZV-2) tires, enclosed ROPS Cab, full fuel tank, and operator.

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# 42ZV-2 / 45ZV-2

## EQUIPMENT DATA

STANDARD EQUIPMENT		
	42ZV-2	45ZV-2
Alarms (Audible):		
Brake Oil Level		●
Engine Coolant Temp		●
Engine Oil Pressure		●
Alarms (Visual):		
Air Filter		●
Brake Oil Level	●	●
Battery Discharge	●	●
Engine Coolant Temp		●
Engine Oil Pressure	●	●
HST Warning		●
Machine Stop		●
Machine Service		●
Alternator	60 AMP	80 AMP
Battery	12V 490CCA	12V 620CCA
Brake (Parking): Spring applied; Oil Pressure Released; Enclosed Wet Disc	●	●
Brake (Service): Enclosed Wet Disc; Full Hydraulic System	●	●
Bucket, Coupler-Type	●	●
Bucket Leveler	●	●
Cold Start Aid—Glow Plugs	●	●
Coupler, Hydraulic	Universal	Hook-type (Std) Universal (Opt)
Counterweight	●	●
Drawbar	●	●
Easy Clean Floor	●	●
Engine Fuel Filter w/Water Separator	●	●
Engine Coolant Reservoir	●	●
Fenders	●	●
Gauges		
Engine Coolant Temp	●	●
Fuel	●	●
Hourmeter	●	●
Hydraulic Oil Level, Sight	●	●
Horn, Electric	●	●
Hydraulic System, 3-Spool Valve	●	●

STANDARD EQUIPMENT, CONT.		
	42ZV-2	45ZV-2
Inching Pedal Function	●	●
Indicators:		
Clearance Light		●
Engine Pre-heater	●	●
Forward/Reverse	●	●
High Beam		●
Parking Brake	●	●
Turn Signals	●	●
Working Light (Opt Equipment)		●
Lifting Eyes	●	●
Limited Slip Differentials (F&R)	●	
Linkage (Z-type, sealed)	●	●
Lights: (2) Headlights (2) Turn Signals (Front) (2) Stop/Tail/Turn Lights (1) Backup	●	●
Neutral Safety Start	●	●
Radiator, Side-by-Side w/Oil Cooler	●	●
Reverse Alarm	●	●
ROPS/FOPS Canopy	●	●
Safety Articulation Locking Bar	●	●
Seat, Adjustable Suspension	●	●
Seat Belt	●	●
Shift Lever Lock	●	●
Vandalism Protection	●	●

OPTIONAL EQUIPMENT		
	42ZV-2	45ZV-2
HVAC (Heat, Vent, A/C)	●	●
Differentials, Manually Locking, Front		●
48" x 48" Pallet Forks	Universal	Universal
Heater Only	●	●
ROPS/FOPS Cab	●	●
Mechanical Coupler		●
Radiator Dust Shield	●	●
Solid Tires	●	●
Delete Standard Bucket	●	●

# HISTORY | TECHNOLOGY | INNOVATION



Kawasaki-KCM loaders have a rich heritage of quality, technology and outstanding support. The origins of Kawasaki-KCM loaders can be traced to 1962 when Kawasaki Heavy Industries built their first articulated wheel loader in Japan. As one of the largest heavy industries in Japan, Kawasaki provided a depth of engineering expertise that eventually made their wheel loader a major global player. As they introduced the wheel loader into the North American market in 1978, they found a positive reception for a productive, high quality loader. They established a solid support system built around an extensive, independent network of dealers committed to provide quality support along with quality equipment. This strong dealer network has helped to propel the Kawasaki-KCM loader to a prominent market position in North America.

In 2010 KCM Corporation, using their vast technological resources, developed the Z7 series of wheel loaders to facilitate the Tier 4 emissions requirement. This effort resulted in the most productive, reliable and cost effective product the company has ever produced, propelling KCM Corporation into a global leadership position in the wheel loader market.

The commitment of KCM Corporation to the North American market is significant. Outstanding parts availability, an unmatched factory component exchange program, customer and dealer training programs, and a wide range of services and programs provide outstanding support for the Kawasaki-KCM wheel loader. With manufacturing facilities in the U.S. and Japan, KCM has the experience and technology to design, engineer, manufacture and service your next wheel loader. The KCM team is focused on wheel loaders. Flexibility, responsiveness and ease of doing business are foundations of that commitment.



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