

# 65TM-2



 **Kawasaki**

# THE VERSATILE

# 651M-2

## A COMPLETE SOLUTION

- Emissions-compliant, fuel-efficient 134 HP Cummins diesel
- Quick Coupler and parallelogram lift arm linkage standard
- Third hydraulic spool optional
- Accepts a wide assortment of attachments to handle many jobs
- Redesigned ROPS cab optimizes productivity and visibility
- Single hydraulic control option for easy operation
- Automatic powershift transmission with four forward and reverse speeds
- Outboard-mounted, four-wheel, dual circuit sealed wet disc brakes for reliability and long service life
- Torque-proportioning differentials for improved traction and increased tire life
- Easy access to drains, filters and fittings



*The 651M-2 is a true multi-mission machine with the features and attachments needed to handle an array of tasks*



## FOR ALL THE WORK THAT NEEDS TO BE DONE!

With the Kawasaki 651M-2, a single loader can accomplish a wide range of tasks on the job site. From moving dirt with the general purpose bucket to backfilling with the side dump bucket, handling pipe with the forks or manhole and cement pipe junction placement with the boom, the Kawasaki 651M-2 offers versatility to handle many jobs without the need for multiple machines.



Featuring a fuel efficient, emissions-compliant Cummins B5.9C diesel engine producing 134 flywheel horsepower, a Quick Coupler, parallelogram lift arm linkage and third hydraulic spool option, the Kawasaki 651M-2 *TaskMaster* is a natural choice for companies needing a truly versatile, multi-mission machine. The 651M-2 provides high operating efficiency, ease of maintenance and safety.



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

## **OPERATOR PRODUCTIVITY AND SAFETY**

The **651<sup>W</sup>-2** features a completely redesigned ROPS cab with an operator's compartment that offers unmatched comfort and is designed to maximize efficiency and productivity. The cab is accessible by ladders on both sides, features a wrap-around tinted windshield, has front and rear wipers and includes many other features which contribute to improved safety, visibility and comfort. The **651<sup>W</sup>-2** comes standard with an AM/FM cassette player and can even be ordered with an optional 25,000 BTU air conditioner.

## **PUTTING THE **651<sup>W</sup>-2** TO WORK**

Like all Kawasaki loaders, the **651<sup>W</sup>-2** has a 35-year heritage of strength and reliability. Dual-lever hydraulic control with single-lever option and single twist-grip transmission control offer ease of operation.

The outboard-mounted, four-wheel sealed wet disc brakes are designed for long life and easy access and overhaul. Standard spin-on filters, remote mounted grease fittings and oil drain simplify maintenance. The standard 20.5 x 25-12PR (L2) tires and optional 20.5 x 25-12PR (L3) tires use heavy duty rims.



## **UNMATCHED SUPPORT**

Kawasaki maintains a large inventory of new components to ensure outstanding parts availability and minimal downtime. In addition, a predictive oil analysis program helps eliminate unnecessary maintenance and helps find problems before they occur. Kawasaki also stocks an array of cost-effective rebuilt components.

## **BUILT TO STAY ON THE JOB**

Kawasaki loaders are designed with the durability to provide years of service. Backed by a dealer network of heavy equipment experts and a dedicated support staff in the Kawasaki parts and service organization, your investment in a Kawasaki loader is an excellent choice that will pay dividends for years to come.

# POWER AND PERFORMANCE UNMATCHED PRODUCTIVITY

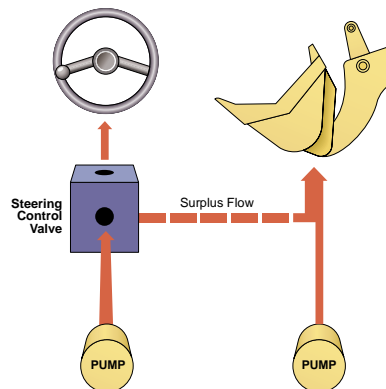
The Kawasaki *651U-2* means business. It incorporates the best in design and technology, giving your operators the tool they need to get the job done.

Because Kawasaki specializes in the design and manufacture of articulated wheel loaders, you get a machine with a 35-year heritage of successful innovations. The power and productivity that the *651U-2* brings to the job is a result of that experience.



## WORLD-CLASS ENGINES

- 134 HP emissions-compliant Cummins B5.9C diesel
- Complies with tough new emissions standards for 2001
- Totally reengineered for longer service life
- Reliable and fuel efficient
- Extensive distribution system
- 24 volt battery system for reserve power



## HIGH EFFICIENCY HYDRAULIC SYSTEM

- Dry, reliable
- Cast iron gear pump
- Energy efficient, steering circuit supplements main
- Easy access to two-spool control valve
- Large oil reservoir keeps oil cooler



## TRANSMISSION

- Automatic four-speed transmission with powershift
- Single lever control
- Left brake pedal activates transmission declutch switch
- Downshift button speeds cycle times and reduces operator fatigue

# PROVIDE



## AXLES/BRAKES

- Heavy-duty torque proportioning differential
- 20.5 x 25-12PR (L2) tires standard
- 17.5 x 25-12PR and 20.5 x 25-12PR (L2, L3 and radial) tires available
- Outboard-mounted, four-wheel, dual-circuit wet disc brakes
- High capacity
- Long life



## LIFT ARMS

- Parallel lift arms keep loads level throughout the lift cycle
- Heaviest in the class
- High breakout force



## STRONG, RUGGED BOX FRAME

- Massive center pins and bearings
- High strength loader tower
- Heavy box frame rear chassis
- All pins of the loading system are fully sealed with grease to provide dependable service with minimum maintenance



# THE COMFORT ZONE

*Kawasaki has taken a from-the-ground-up approach to create a cab designed with the operator in mind. The new cab focuses on providing the ultimate environment for productivity, comfort and safety. The high visibility, quiet, temperature controlled cab offers the operator ideal surroundings for putting the Kawasaki loader through its paces.*

## **New Features**

- Adjustable tilt steering with interlocking instrument panel
- Adjustable wrist rest
- AM/FM cassette radio, standard
- Viscous isolation-mounted to reduce vibration
- Wrap-around tinted windshield for excellent visibility
- Reduced sound levels
- Personal storage space and coat hook
- Intermittent front wiper

- Seven-way adjustable seat with headrest and adjustable arms, standard

## **Redesigned Features**

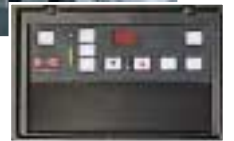
- Single twist grip transmission lever redesigned for easy gripping and smoother shifting
- All systems monitored with lights and alarms
- One rearview and two side mirrors

## **Standard Features**

- Certified ROPS
- Rear cab light
- Doors latch back
- Side windows slide down
- 40,000 BTU Heater standard
- Pressurized air control
- Left brake pedal activates transmission declutch switch
- Front and rear wipers and washers
- Heavy duty seat suspension

## **Optional Features**

- 25,000 BTU air conditioner available
- Single lever hydraulic control, optional
- Air Ride Seat



# EASY ACCESS SIMPLIFIES SERVICING

- Hinged grille makes radiator cleaning easy
- Engine side covers open wide for optimum access
- Filters positioned within easy reach
- Easy access to drains, filters and fittings
- Grease fittings are grouped for easy lubrication
- Readily available Fleetguard and Donaldson filters
- Starters and alternators available through Cummins national distribution network
- Ladders on both sides of the machine
- Pressurized air control reduces dust in cab and control boxes



## ATTACHMENTS & OPTIONS

### COUPLER

The versatile coupler system makes connecting attachments easy on any terrain. The *6510i-2* is truly a versatile machine, allowing the operator to drop one attachment and quickly hook up another—all without leaving the cab. The linkage arms and coupler are designed for superior visibility, facilitating the changing of attachments.

### PARALLEL LIFTING CAPABILITY

The parallelogram linkage allows the attachment to remain level throughout the lift cycle, making the *6510i-2* ideal for fork handling and boom applications.

The *6510i-2*, with standard JRB Quick Coupler, can be used in conjunction with a variety of attachments, including:

- General and multi-purpose buckets
- Side dump bucket
- Construction utility forks
- Utility pallet forks
- Extendable boom
- Paddle top clamp forks
- Grapple bucket
- Loader rake and loader rake with hydraulic clamps



# 65<sup>T</sup>M-2 OPERATING SPECIFICATIONS

## ENGINE

Make/Model/Fuel Type	Cummins/B5.9-C/Diesel
Type	4-cycle, watercooled, direct injection with turbocharger
Net flywheel horsepower	134HP/2400 RPM
Max torque	383 ft/lb/1400 RPM
Number of cylinders	6
Bore and stroke	4.02" x 4.72" (102mm x 120mm)
Total displacement	359 in3 (5883 cm3)
Alternator	DC24V-1200w (50amp)
Starting motor	24V-4.5kw (6HP)
Battery	12V-110AH, 2 units
Governor	All-speed, mechanical type

## TORQUE CONVERTER AND TRANSMISSION

Torque converter	3 elements, single stage
Torque stall ratio	3.15:1
Main clutches	Wet hydraulic, multi-disc type
Cooling method	Forced circulation type
Transmission	Full power shift, 4 forward, 4 reverse with automatic mode (2nd-4th with downshift switch for 2nd-1st downshifting)
Forward & reverse (maximum speed)	1st: 5.0 MPH (8.0 km/hr) 2nd: 8.0 MPH (13.0 km/hr) 3rd: 12.5 MPH (20.0 km/hr) 4th: 23.1 MPH (37.0 km/hr)

## SERVICE REFILL CAPACITY

LOCATION	CAPACITY:	
	Gallons	Liters
Engine (coolant)	11.10	(42.2)
Fuel tank (diesel fuel)	47.60	(175.0)
Engine oil (oil pan)	3.75	(14.2)
Front axle (gear oil)	6.60	(20.0)
Rear axle (gear oil)	6.60	(20.0)
Steering box	0.10	(0.4)
Torque converter and transmission (engine oil)	7.90	(30.0)
Hydraulic system including tank (hydraulic oil)	26.4	(100.0)
Brake oil tank (engine oil)	0.4	(1.5)

## HYDRAULIC AND STEERING SYSTEM

Steering type	Articulated frame steering	
Steering mechanism	Hydraulic power steering unit, mechanical follow-up	
Lift (boom) cylinder	Two (2) double-acting piston type: 4.7" x 28" (120mm x 713mm)	
Tilt (bucket) cylinder	Two (2) double-acting piston type: 5.3" x 29.75" (110mm x 756mm)	
Steering cylinder	Two (2) double-acting piston type: 2.5" x 14.7" (65mm x 374mm)	
Steering oil pump	Gear type: 26.2 GPM/1000psi @2350 RPM (99 LPM/70kg/cm <sup>2</sup> @2350 RPM)	
Main oil pump	Gear type: 16.1 GPM/1000psi @2350 RPM (61 LPM/70kg/cm <sup>2</sup> @2350 RPM)	
Relief valve set pressure	Loading	2770 psi (195 kg/cm <sup>2</sup> )
	Steering	3000 psi (210 kg/cm <sup>2</sup> )
HYDRAULIC CYCLE TIME*		
Lifting time (at full load)	5.8 sec.	
Lowering time (empty)	2.9 sec.	
Bucket dumping time	2.2 sec.	
TOTAL	10.9 sec.	

\* Measured in accordance with SAE J732C

## AXLE SYSTEM

Drive system	4-wheel drive	
Front and rear axle	Semi-floating type	
Tires	Standard	20.5 x 25-12PR (L-2)
	Optional	17.5 x 25-12PR (L-3) 20.5 x 25-12PR (L-3)
Reduction and differential gear	Spiral bevel/gear, 1 stage reduction, torque proportioning type	
Final reduction gear	Internal planetary gear (5.625:1) inboard mounted	
Oscillation angle	±12° (total ±24°)	

## BRAKE SYSTEM

Service brakes	4-wheel enclosed wet disc brakes, dual circuit	
Parking/Emergency brake	Spring applied air released type, located on drive shaft. Meets MSHA requirements	

Materials and specifications are subject to change without notice and without obligation on the part of the manufacturer. The specifications supplied, while believed to be completely reliable, are not to be taken as warranty for which we assume legal responsibility.

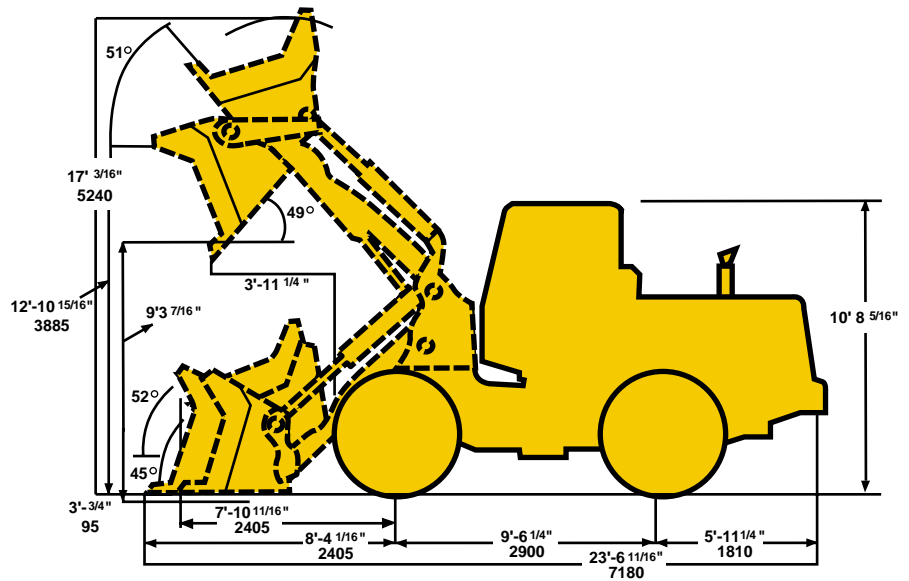
# 65<sup>M-2</sup> OPERATING SPECIFICATIONS

## WEIGHTS AND DIMENSIONS (SUPPLEMENTAL DATA)

	lb (kg)	Operating Weight	Tipping Load		in (mm)	Overall Width (Outside Tire)	Tread	Vertical Dimensions	Overall Length
			Straight	Full Turn					
ROPS Canopy (Instead of ROPS Cab)	lb (kg)	-705 (-320)	-660 (-300)	-630 (-285)	in (mm)				
Remove ROPS Canopy and Cab (for transport only)	lb (kg)	-1150 (-520)			in (mm)			-1'8 <sup>7</sup> / <sub>8</sub> " (-530)	
Tires: 17.5-25-12PR (L-2)	lb (kg)	-485 (-220)	-365 (-165)	-320 (-145)	in (mm)	-1'1 <sup>1</sup> / <sub>16</sub> " (-30)	-2'3 <sup>3</sup> / <sub>8</sub> " (-60)	-2'3 <sup>3</sup> / <sub>4</sub> " (-70)	+2'3 <sup>3</sup> / <sub>8</sub> " (+60)
20.5-25-12PR (L-3)	lb (kg)	+265 (+120)	+210 (+95)	+190 (+85)	in (mm)				
Air conditioner	lb (kg)	+220 (+100)	+265 (+120)	+230 (+105)	in				
Belly Guard (rear frame)	lb (kg)	+240 (+110)	+375 (+170)	+330 (+150)	in				

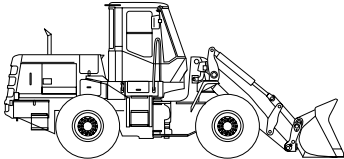

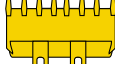
Base Tire 20.5-25-12PR (L-2)

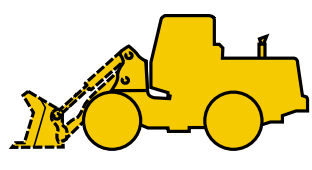
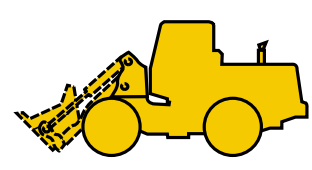
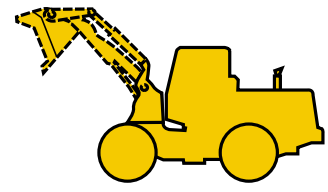
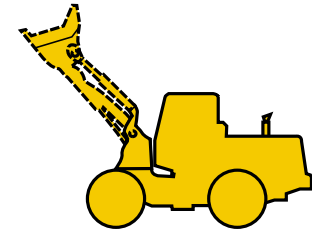
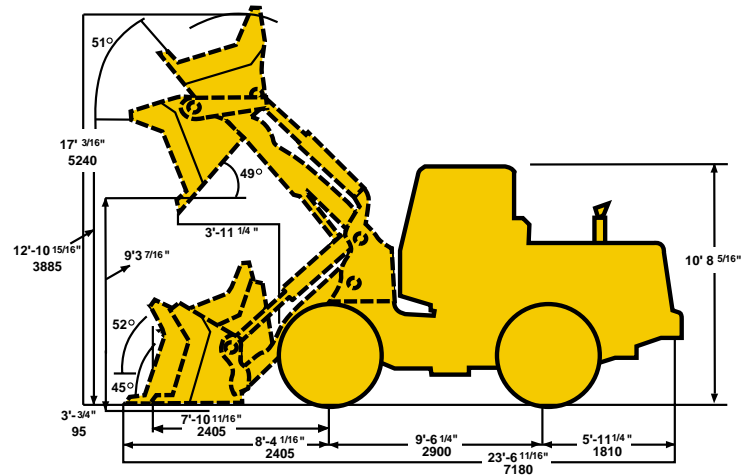
Tread ..... 6'4" (1870mm)  
 Width (outside tire) ..... 7'10<sup>11</sup>/<sub>16</sub>" (2405mm)  
 Width (outside bucket) .... 8'1<sup>1</sup>/<sub>2</sub>" (2450mm)  
 Equipped with GSC bucket with bolt on cutting edge  
 20.5-25-12PR (L-2) Tire and ROPS Cab



# 65<sup>T</sup>M-2 BUCKET DATA

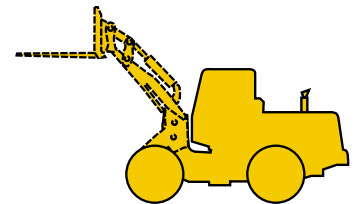
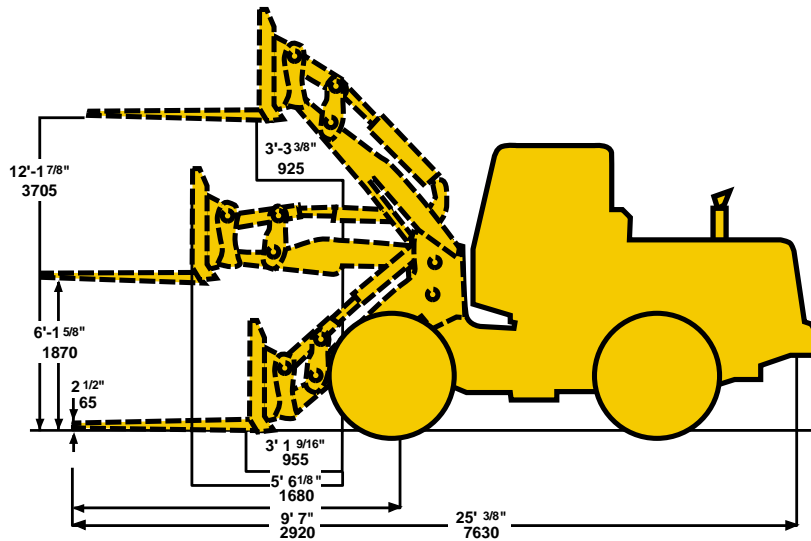
## General Purpose Bucket

			General Purpose	
			With Bolt-on Cutting Edge	With Teeth
				
Capacity	Heaped	yd <sup>3</sup> (m <sup>3</sup> )	2.6 (2.0)	2.5 (1.9)
	Struck	yd <sup>3</sup> (m <sup>3</sup> )	2.3 (1.7)	2.2 (1.6)
Maximum dumping clearance		ft-in (mm)	9'3 <sup>7</sup> / <sub>16</sub> " (2760)	9' (2745)
Dumping reach (to front of bucket edge or tooth)		ft-in (mm)	3'11 <sup>1</sup> / <sub>4</sub> " (1275)	4'1 <sup>1</sup> / <sub>16</sub> " (1255)
Bucket hinge pin height		ft-in (mm)	12'8 <sup>15</sup> / <sub>16</sub> " (3885)	12'8 <sup>15</sup> / <sub>16</sub> " (3885)
Digging depth		ft-in (mm)	3 <sup>3</sup> / <sub>4</sub> " (95)	4 <sup>5</sup> / <sub>16</sub> " (110)
Breakout force		lb (kg)	22,597 (10,250)	23,810 (10,800)
Bucket tilt-back angle	at ground level		45°	43°
	at carry position		52°	48°
Overall	Length	ft-in (mm)	23'6 <sup>1</sup> / <sub>16</sub> " (7180)	23'10" (7265)
	Height	ft-in (mm)	10'8 <sup>3</sup> / <sub>4</sub> " (3270)	10'8 <sup>3</sup> / <sub>4</sub> " (3270)
Width (outside tire)		ft-in (mm)	7'10 <sup>11</sup> / <sub>16</sub> " (2405)	7'10 <sup>11</sup> / <sub>16</sub> " (2405)
Width (outside bucket)		ft-in (mm)	8 <sup>7</sup> / <sub>16</sub> " (2450)	8 <sup>7</sup> / <sub>16</sub> " (2450)
Wheel base		ft-in (mm)	9'6 <sup>1</sup> / <sub>4</sub> " (2900)	9'6 <sup>1</sup> / <sub>4</sub> " (2900)
Minimum turning radius	at outside bucket	ft-in (mm)	18'8 <sup>3</sup> / <sub>4</sub> " (5710)	18'10 <sup>1</sup> / <sub>8</sub> " (5745)
	at center of outside tire	ft-in (mm)	16'1 <sup>11</sup> / <sub>16</sub> " (4920)	16'1 <sup>11</sup> / <sub>16</sub> " (4920)
Minimum ground clearance		ft-in (mm)	1'5 <sup>1</sup> / <sub>2</sub> " (445)	1'5 <sup>1</sup> / <sub>2</sub> " (445)
Full articulation angle		degree	40°	40°
Operating weight (with ROPS Cab)		lb (kg)	25,375 (11,510)	25,290 (11,470)
Static tipping load (with ROPS Cab)	Straight	lb (kg)	16,953 (7690)	17,065 (7740)
	Full turn	lb (kg)	14,505 (6580)	14,595 (6620)



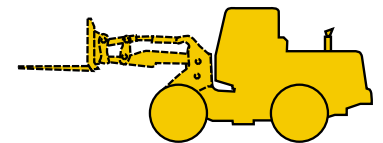
The weight and load figure include Enclosed ROPS Cab, 20.5-25-12PR (L-2) tires, Full fuel tank and operator.

# 65TM-2 ATTACHMENT DATA

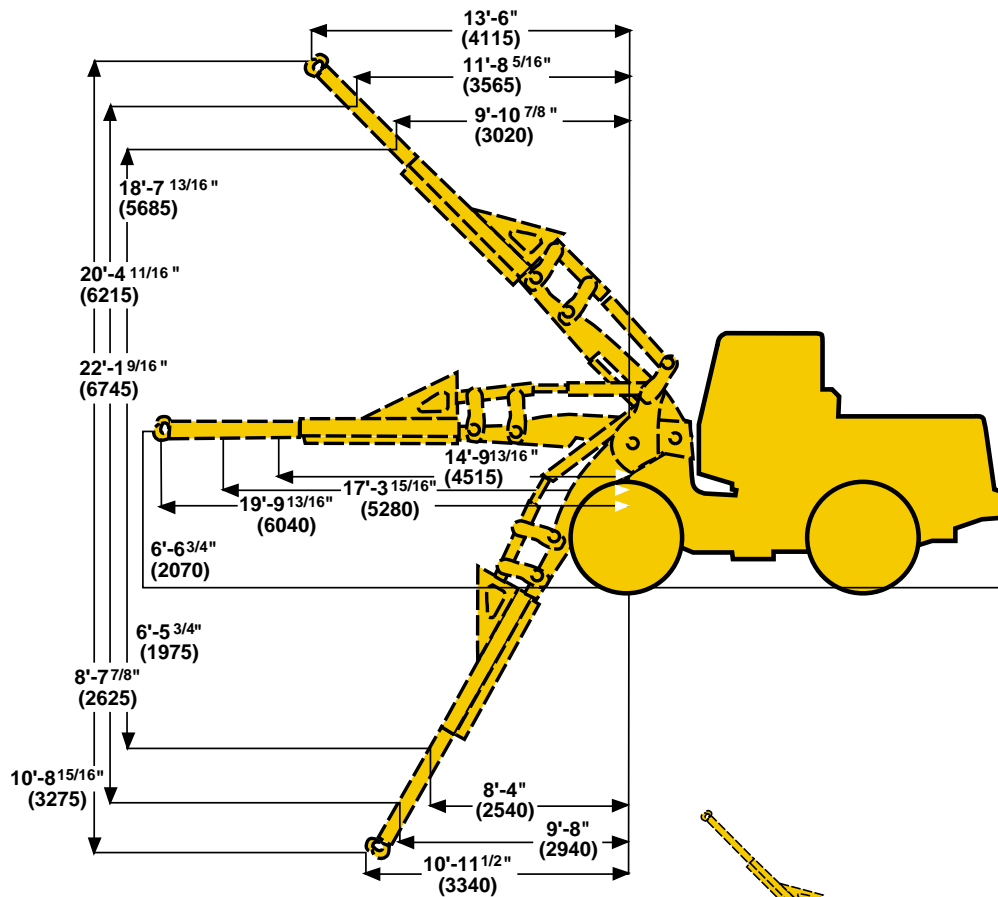


## Construction Utility Fork

SPECIFICATIONS WITH FORKS			
Fork Tine length		48"	60"
Ground to top of tine clearance	ft-in (mm)	12'1 <sup>7</sup> / <sub>8</sub> " 3705	12'1 <sup>7</sup> / <sub>8</sub> " 3705
Reach with arms horizontal and forks level	ft-in (mm)	6'1 <sup>5</sup> / <sub>8</sub> " 1870	6'1 <sup>5</sup> / <sub>8</sub> " 1870
Overall Length	ft-in (mm)	25' <sup>3</sup> / <sub>8</sub> " 7630	26' <sup>3</sup> / <sub>8</sub> " 7935
Static tipping load with level arms and forks, load center (23.6", 600mm.) <b>straight</b>	lb (kg)	12,875 5840	12,145 5510
Static tipping load with level arms and forks, load center (23.6", 600mm.) <b>full 40° turn</b>	lb (kg)	11,025 5000	10,405 4720
Operating weight*	lb (kg)	24,910 11,300	25,000 11,340
Attachment weight with 60" carriage	lb (kg)	1345 610	1485 674



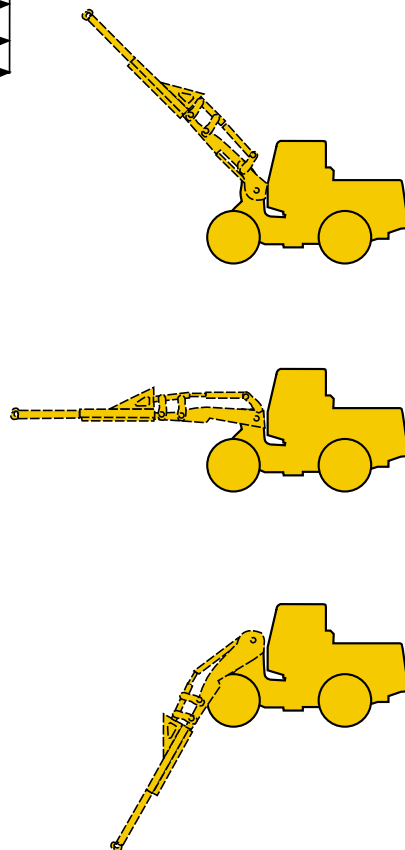
# 65TM-2 ATTACHMENT DATA



## Extendable Boom

SPECIFICATIONS WITH EXTENDABLE BOOM			7'5 3/4"	10'7 1/4"	13'8 3/4"
Boom position					
Operating load at 40° articulation	lb (kg)		4460 (2022)	3790 (1720)	3295 (1495)
Static tipping load*	Full 40° turn	lb (kg)	7365 (3340)	6260 (2840)	5445 (2470)
	Straight	lb (kg)	8620 (3910)	7320 (3320)	6350 (2880)
Operating weight*		lb (kg)	24,650 (11,180)		
Attachment weight		lb (kg)	1170 (531)		

\*Static tipping load and operating weight are based on standard machine configuration with 20.5-25-12PR (L-2) tires, full fuel tank, and operator, and quick coupler.



# 65<sup>TM</sup>-2 EQUIPMENT DATA

<b>STANDARD EQUIPMENT</b>			
Adjustable Steering Column Air Cleaner (Double Element Donaldson with Precleaner) Alarms (Audible): Air Master Overstroke Air Pressure Brake Oil Level Engine Oil Pressure Alarms (Visual): Air Filter Air Master Overstroke Air Pressure Battery Discharge Brake Oil Level Converter Oil Temperature Engine Oil Pressure Engine Coolant Temperature Parking Brake Alternator (50 amp) AM/FM Cassette Radio Batteries: 12V-110AH (2 units) Brake (Parking) Spring applied; Air released, Drum type	Brakes (Service) Air/Oil Actuation Enclosed Wet Disc Dual System Bucket Control Lever (Dual) Bucket Leveler Boom Kickout Coat Hook Cold Start Aid Counterweight Coupler, Hydraulic w/Lines and Control Cup Holder Downshift Button Drawbar Electrical System (24 volt) Engine Coolant Expansion Tank Fan (Blower) Fenders (Front and Rear) Gauges: Air Pressure Converter Oil Temperature Engine Coolant Temperature Fuel Level Hour Meter	Hydraulic Oil Level Sight Gauge Tachometer Heater/Pressurizer (40,000 BTU) Hoodsides (Hinged) Horn (Electric) Indicators: High Beam Parking Brake Transmission Declutch Transmission Shift Monitor Working Light Linkage (Parallel, Sealed) Lights: 4 Front 2 Rear 2 Stop/Tail 2 Backup 2 ROPS Muffler Neutral Safety Start Operator's Manual Box Radiator: Heavy Duty, Plate Fin Type Radiator Grille, Hinged Reverse Alarm	ROPS Cab: Enclosed cab with sound suppression, front lights, front and rear wipers and washers, one rear view and two side mirrors, tinted glass, and sliding side windows, and rear light Safety Articulation Locking Bar Seat (Super Deluxe, Adjustable Suspension, Headrest and Adjustable Arm Rests) Seat Belt, Retractable, 3" wide Shift Control Unit for Automatic Shift Torque Proportioning Differentials Transmission Declutch Selector Switch Vandalism Protection Wiper, Front Intermittent Wrist Rest, Adjustable
<b>OPTIONAL EQUIPMENT</b>			
Air Conditioner (R134 refrigerant) Air Dryer Air Ride Seat Belly Guard Bolt-on Cutting Edge Segments	Bucket Teeth Cushion Dump Valve Easy Clean Radiator Side-by-Side Emergency Steering	Hydraulic System, 3-spool Valve No Spin Differential Ride Control ROPS Canopy	Seat, Air Ride Single Lever Hydraulic Control Turn Signal With Four-Way Flasher

# KAWASAKI LOADERS

*More Than A Machine, A Complete Solution*

Kawasaki Construction Machinery Corp. of America, a division of Kawasaki Heavy Industries, is a leading supplier of a full range of high quality wheel loaders. In fact, Kawasaki is the oldest on-going manufacturer of articulated, rubber-tired wheel loaders in the world. With over 35 years of proven performance history, Kawasaki wheel loaders have continuously evolved to bring you the best in equipment and support services, backed by a carefully selected dealer network.

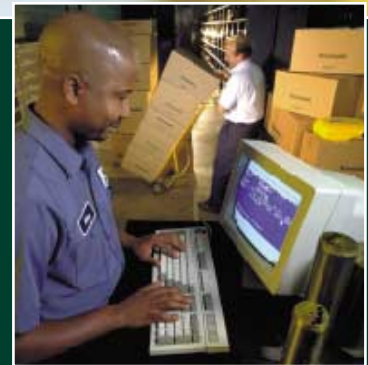
Kawasaki articulated wheel loaders incorporate innovative design features coupled with extensive knowledge and experience gained from real-world applications. Kawasaki pioneered Z-Link design to provide unmatched utility, high breakout force and efficiency in its machines. Powered by proven emissions-compliant Cummins diesel engines, durability and serviceability are designed into every Kawasaki loader.

Kawasaki loaders are assembled at the company's modern facilities in Newnan, GA. Service and support operations are headquartered in Kennesaw, GA.

A state-of-the-art parts distribution system links dealers with the main parts warehouse, allowing them to order parts directly. Qualified craftsmen rebuild components for all Kawasaki models at our fully-equipped rebuild center, making component exchange easier and faster. An independent oil analysis program allows monitoring of critical systems to reduce unscheduled downtime.



The independent dealers that represent and support Kawasaki loaders are experts in their markets and are dedicated to providing you with the best service available. Together, we are committed to making your investment in a Kawasaki loader a sound business decision that will pay dividends for years to come.



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