WA 180-3 WA 250-3

PARALLEL TOOL CARRIER

BUCKET CAPACITIES

WA180-3: 2.25 - 2.5 yd3

1.7 - 1.9 m³

WA250-3: 2.5 - 3.0 yd3

1.9 - 2.3 m³

KOMATSU





WA180-3/WA250-3



Designed for improved reliability, and enhanced versatility, the WA180-3 and WA250-3 mean value, and anything less is just another tool carrier.

Komatsu-integrated design for the best value, reliability, and versatility. Engine, power train, frame, and all other major components are engineered by Komatsu. You get a machine whose components are designed to work together for higher production, greater reliability, more versatility, and the best visibility in the industry.

Ground level greasing reduces maintenance time. See pg. 8.

Komatsu torque proportioning differentials are standard. See pg. 7.

New sealed, wet disc parking brake for better reliability and less maintenance cost. See pg. 7.

Kick-down transmission switch is another standard feature. See pg. 7.

 PARALLEL
 WA180-3
 110 hp 82 kW
 22,840 lb 10360 kg
 2.25 - 2.5 yd³ 1.7-1.9 m³

 TOOL CARRIER
 WA250-3
 127 hp 95 kW
 27,540 lb 12492 kg
 2.5 - 3.0 yd³ 1.9-2.3 m³







New cab for increased operator productivity. New operator's cab provides easy entry and exit, better visibility, increased comfort, see-at-a-glance console, two-door walk through and finger-touch shifting. See pg. 5.

Special rubber mounted cab for greater comfort.

Special rubber-mounted cab reduces vibration and noise that can fatigue the operator and reduce his efficiency. See pg. 5.

Electrically Controlled Suspension System (ECSS) value-option for better productivity. ECSS absorbs pitching and bouncing. See pg. 9.

New easier access to engine for servicing. Pneumatic cylinders assure the Gull-wing side covers and rear grill open with an easy touch. See pg. 8.

New Komatsu diesel power for productivity and reliability. See pg. 6.

New Sight gauges

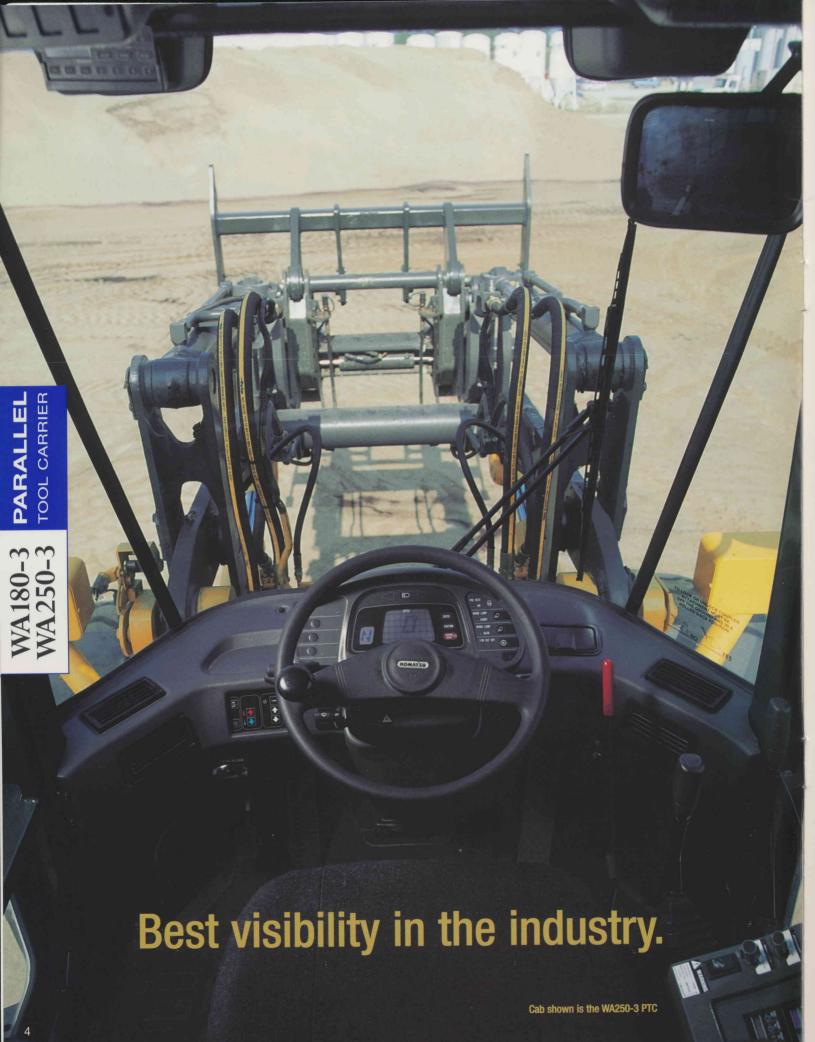
for hydraulic tank and transmission case.

Ground level fueling.

Check battery and clean radiator easily. The rear grill lifts using pneumatic cylinders for easy access to the radiator and battery.

New Komatsu 4-speed transmission better matches all applications for reliability, productivity, and versatility. See pg. 7.

It all adds up to more value and better return for your investment. It's what you should expect when you select Komatsu.



OPERATOR'S

COMPARTMENT



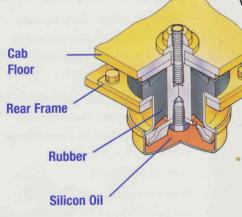
Ask the Man Who Runs One, he will tell you the operator's cab sets the Komatsu Parallel Tool Carriers apart from the others. That's a productivity feature you can't ignore. No matter how a machine specs out, or how much is promised for productivity, unless the operator can work a full shift without becoming fatigued, you will never get the full measure of promised productivity.

The cab improvements on the Parallel Tool Carriers go beyond providing a large cab with a comfortable seat. Improvements include these production enhancing standard and optional features:

- Best visibility in the industry using large curved glass front window and optimized linkage.
- Two-door walk through cab. Good for ventilation as well as easy entry and exit from either side of the cab using swing-back cab doors.
- Rubber mounts dampen noise and vibration, reduces fatigue caused by noise. Helps keep the operator productive, longer.
 - Low-effort brake pedals actuate full hydraulic brakes. Parking brake provides effective braking with light foot pressure.
 - Steer with ease. Komatsu's full hydraulic steering provides fast response with low effort, at low engine RPM.

- Kick-down switch is conveniently located on the boom shift lever. A simple motion of the thumb actuates this valuable productivity feature.
- Easy shifting and directional changes, with Komatsu's 2-lever electronic shifting. Change direction or shift gears without removing the shifting hand from the steering wheel.
- See the monitor through the steering wheel, not around it.
 A specially designed two-spoke steering wheel allows the operator to easily see the instrument panel.
- At-a-glance instrument monitor.

 Monitor is mounted in front of the
 operator and is tilted for easy view,
 allowing the operator to easily check
 gauges and warning lights.



Value Options

High value options for productivity and those added touches that make work a lot easier.

- Keep cool, keep productive with a 5-mode air conditioner. Thirteen strategically-located vents direct cool air to the operator, keeping him productive on the hottest days.
- There's nothing more refreshing than a cold drink on a hot day.
 The cool box will help keep your
- lunch and beverage cool. That's something to look forward to at lunch or break-time.
- Make the time go faster with an auto-tuning AM/FM cassette radio.
 Includes a digital clock and access to a weather station. Removable control head minimizes vandalism.

KOMATSU DESIGNED POWERLIRAIN

Komatsu integrated design means components are matched to provide most efficient use of power whether you're working the face of a material bank or travelling with a loaded bucket.

The WA180-3 and WA250-3 Tool Carriers are designed to effectively match the engine, 4-speed transmission, torque proportioning differentials, axles, and brakes to the applications for which this tool carrier is built to handle.

KOMATSU EMISSIONIZED S6D102E-1 DIESEL ENGINE

Four-cycle, water-cooled, turbocharged, six cylinder engine that is not only fuel efficient, but meets US and CARB emission requirements.

With a piston displacement of 359 cubic inches (5.9 ltr), the Komatsu S6D102E-1 has a net flywheel horsepower of 110 hp for the WA180 and 127 hp for the WA250 at 2400 rpm.

Other engine features include:

- Automatic electric cold-weather heating system. The preheating time of the engine is automatically set according to the engine water temperature. Provides for quick starts and reduces added wear of cold weather starts made without this heating system.
- Large capacity, double-wrapped muffler is mounted under the hood for lower engine noise and better operator visibility.
- Simple, rugged design for dependability and low service requirements.
- Gull-wing doors use pneumatic cylinders to allow easy access to the engine and radiator for routine maintenance.
- Spin-on filters and easily accessible lubrication points mean reduced maintenance time and less chance of missing these important maintenance items.
- Sealed wet-type disc service brakes. Sealed from foreign debris even when working in hostile environments.
- **New Maintenance-free parking** brake is located in the transmission case and is a wet-type disk brake.



Transmission



Torque Proportioning Differential

NEW KOMATSU 4-SPEED TRANSMISSION REPLACES 3-SPEED TRANSMISSION

Provides maximum forward speed in fourth gear of up to 24.0 mph (38.4 km/h) and in reverse of 24.3 mph (38.9 km/h). The transmission is a full-power shift, countershaft type transmission.

Other features include:

- Solid state electronic shifting control that reduces wear, increases reliability and provides easy directional shifts.
- Fingertip shifting from forward to reverse or from one gear to another.
- Four forward and four reverse gears to better match the cycle conditions.
 You get higher efficiency and better fuel economy.

Consider this valuable feature for added productivity. Kick-down switch automatically downshifts with the touch of a finger from second to first when beginning the digging cycle. Automatically upshifts from first to second when direction control lever is placed in reverse. The result is increased rim pull for better bucket penetration and reduced cycle times for higher productivity.

4-Wheel drive with torque proportioning differentials for reduced slippage and longer tire

life. This improves the ability of the WA180-3/WA250-3 to maneuver in unstable conditions compared to a similar machine equipped with conventional differentials.

Komatsu designed axles and final drives for the best reliability and low maintenance.

Axles are semi-floating, the front axle is fixed. The rear axle is a center-pin support design that provides a total oscillation of up to 30 degrees.

The differential reduction gear is a heavy-duty spiral bevel gear for strength and reliable performance.

Rugged, inboard planetary final drives carry the total gear reduction of the drive train to the wheel which is mounted to the axle hub.

Wet disc brakes and a full hydraulic braking system

mean lower maintenance costs and higher reliability. Wet disc brakes are fully sealed. Contaminants are kept out, reducing wear and resulting maintenance. Brakes require no adjustments for wear, meaning even lower maintenance. The new parking brake is also an adjustment-free, multidisc wet type for high reliability and long life.

Added reliability is designed into the braking system by the use of two independent hydraulic circuits, which provides hydraulic back-up should one of the circuits fail.

Full hydraulic brakes mean no air system to bleed, or the condensation of water in the system that can lead to contamination and corrosion.



EASY

MAINTENANCE

SERVICING WITH A SMILE

It would be better if most of us approached routine maintenance and service as something that made us smile. That's why Komatsu designed the WA180-3 and WA250-3 Parallel Tool Carriers with large service doors, sight gauges, and easy service access. We know by doing this, routine maintenance and servicing are less likely to be skipped, which can mean a reduction in costly downtime later on. Here are some of the many service features found on the tool carriers.

Komatsu design means more value

- Large gull-wing service doors provide easy access to the engine compartment.
- Ground Level Greasing—all grease points are easily reached from ground level and lubrication banks are provided in some areas to reduce maintenance time.
- Batteries are located in the counterweight for ground level access.
- Sealed Loader Linkage Pins—
 designed to keep grease contained
 longer, prevent the entrance of dust,
 thereby lengthening greasing
 intervals.



Versatile Work Equipment







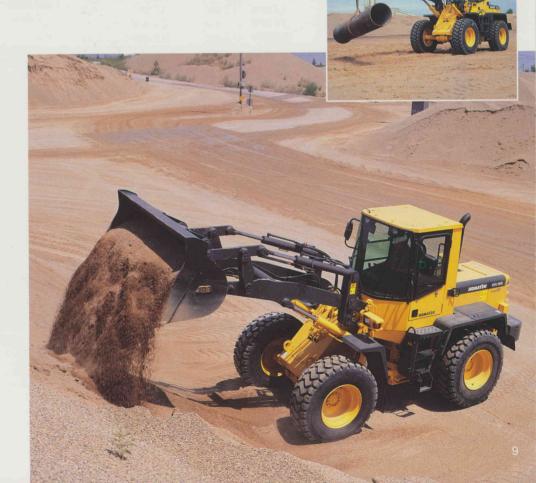
OPTIONAL ELECTRICALLY CONTROLLED SUSPENSION SYSTEM

Takes the bounce out of travel on rough ground surfaces. Provides greater comfort and confidence for the operator as well as increasing travel speed and steering stability while improving the material retention in the bucket.

Here's how it works. A switch in the operator's compartment initiates the electrical circuit that actuates the solenoid selector valves for the boom cylinders as well as pressure switches for the accumulator. This allows the accumulators to absorb the shocks during roading.

COUPLER SYSTEM

The versatile, factory-supplied coupler system provides fast, efficient tool changes without leaving the cab. Your Komatsu tool carrier allows interchangability between models as well as several major manufacturers. This new design also allows superior visibility of the work equipment. An optional third spool valve is available for additional hydraulic functions.



WA180-3 and WA250-3 Parallel Tool Carrier

SPECIFICATIONS



ENGINE

Model	Komats	su S6D102E-1
Type	Water-o	cooled, 4-cycle
Aspiration		Turbocharged
No. of cylinders		6
Bore x stroke	4.0" x 4.7" (102 n	nm x 120 mm)
Piston displacement		
Governor	Mechanical, all	-speed control
Horsepower Rating @ 240		e Tare Same
norosponor nameg = = m	HP	kW
Gross power:	WA180-3 118	88
	WA250-3 135	101
Net power:	WA180-3 110	82
	WA250-3 127	95
Meets 1997 EPA emissions re	egulations	
Fuel system		Direct injection
Lubrication system		
	ear pump, force-lubrication	n
Filter Fu		
Air cleaner Di	ry type with double eleme	ents and dust
	acuator, plus dust indicat	



TRANSMISSION

Torque converter	3-element, single-stage, single-phase
Transmission	Full-power shift, countershaft type
	electrically shifted

WA180-3

Travel	Speed* For	ward	Rev	/erse
1st	4.3 MPH	7.0 km/h	4.7 MPH	7.5 km/h
2nd	7.1 MPH	11.5 km/h	7.4 MPH	12.0 km/h
3rd	13.0 MPH	21.0 km/h	14.0 MPH	22.5 km/h
4th	20.8 MPH	33.5 km/h	21.7 MPH	35.0 km/h

*Measured with 17.5-25 tires

WA250-3

Travel	Speed* For	ard Reverse		erse
1st	5.3 MPH	8.5 km/h	5.3 MPH	8.5 km/h
2nd	7.8 MPH	12.5 km/h	8.1 MPH	13.0 km/h
3rd	14.6 MPH	23.5 km/h	14.9 MPH	24.0 km/h
4th	23.6 MPH	38.0 km/h	24.2 MPH	39.0 km/h

*Measured with 20.5-25 (L2) tires



DRIVES & BRAKES

Drive syste	em	Four-wheel drive
Front		Fixed, semi-floating
Rear	WA180-3	Center-pin support, semi-floating
		24° total oscillation
	WA250-3	Center-pin support, semi-floating
		30° total oscillation
Reduction	gear	Spiral bevel gear
Differentia	l gear	Torque proportioning type
Final redu	ction gear	Planetary gear, single reduction
Service br	akes	Hydraulically-actuated, wet disc
		brakes actuate on four wheels.
Parking br	ake	Wet multiple disc brake on
		transmission output shaft.
r unting D		transmission output shaft.



STEERING SYSTEM

Type Orbital type, full-hydraulic power
steering independent of engine rpm.
Steering angle
Minimum turning radius at the center of outside tire
WA180-3
WA250-3



BUCKET CONTROLS

Control positions	
Boom	Raise, hold, lower, and float
Rucket	Pollhack hold and dumn



HYDRAULIC SYSTEM

Capacity (discharge now) & engine rated firm			
Loader Pump	WA180-3 38.0 gal/min	144 ltr./min	
	WA250-3 46.2 gal/min	175 ltr./min	
Steering Pump	WA180-3 28.0 gal/min	106 ltr./min	
	WA250-3 34.9 gal/min	132 ltr./min	

(Gear Type Pumps)
Relief valve setting

Loader	
Steering	2700 PSI 190 kg/cm ²
Control volvo	

Control valve

2-spool open of	center type		
Hydraulic cylinders	Number of cylinders	Bore	Stroke
Boom			
WA180-3	2	4.3" 110 mm	27.8" 705 mm
WA250-3	2	4.7" 120 mm	28.1" 714 mm
Bucket			
WA180-3	2	3.9" 100 mm	31.5" 800 mm
WA250-3	2	4.3" 110 mm	31.5" 800 mm
Steering			
WA180-3	2	2.3" 60 mm	13.4" 340 mm
WA250-3	2	2.8" 70 mm	18.1" 460 mm

WA180-3 Hydraulic cycle time (rated load in bucket) = 10.1 sec.

 $\label{eq:Raise...5.8} \textbf{sec./Dump...1.3 sec./Lower (empty)...3.0 sec.} \\ \textbf{WA250-3 Hydraulic cycle time} \ (\text{rated load in bucket}) = \textbf{10.5 sec.} \\$

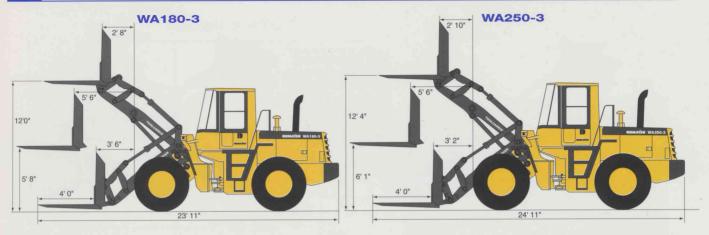
Raise...5.7 sec./Dump...1.5 sec./Lower (empty)...3.3 sec.



SERVICE REFILL CAPACITIES

WA180-3	
Cooling system 9.2 gal	35.0 ltr
Fuel tank	170.0 ltr
Engine	17.0 ltr
Hydraulic system 10.8 gal	40.1 ltr
Axle (each front and rear) 3.7 gal	14.0 ltr
Torque converter and transmission 6.2 gal	23.5 ltr
Brake fluid	1.0 ltr
WA250-3	
Cooling system 9.6 gal	36.5 ltr
Fuel tank	184.0 ltr
Engine	19.5 ltr
Hydraulic system 16.9 gal	64.0 ltr
Axle (each front and rear) 4.5 gal	17.0 ltr
Torque converter and transmission 7.9 gal	30.0 ltr





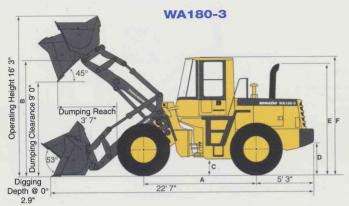
Fork

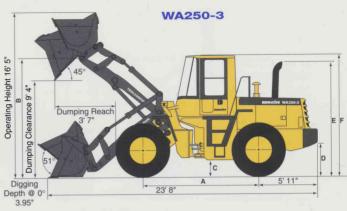
WA180-3				WA250-3	
Static tipping load—b	oom level				
Fork level 24" load center	610 mm Straight	11,415 lb	5178 kg	13,950 lb	6328 kg
	Full turn (40°)	9,931 lb	4505 kg	12,136 lb	5505 kg
Operating weight		22,745 lb	10317 kg	26,588 lb	12060 kg
Fork tine length		48"	1220 mm	48"	1220 mm
Ground to top of tine	@ max. lift	12'0"	3655 mm	12'4"	3770 mm
Reach @ max. lift		2'8"	810 mm	2'10"	865 mm
Ground to top of tine-boom and tine	level	5'8"	1715 mm	6'1"	1860 mm
Reach boom and tine	level	5'6"	1685 mm	5'6"	1675 mm
Overall length—tine le	evel	23'11"	7279 mm	24'11"	7604 mm
Operating Load		4,966 lb	2252 kg	6,068 lb	2752 kg

- * Operating load per SAE J1197 (Feb, 1991) 50% of static tipping load.
- * Static tipping load and operating weight shown include lubricants, coolant, full fuel tank, ROPS cab, 17.5-25, 12PR (L2) tires (20.5-25, 12PR(L2) for the WA250-3), front fenders and operator. Machine stability and operating weight are affected by counterweight, tire size, and other attachments. Note the following weight changes to operating weight and static tipping loads.

Weight Changes

Tires & Options	Change in Operating Weight		ge in ad Bucket	Change in Tipping Load Fork			
WA180-3		Straight	Full Turn	Straight	Full Turn		
ROPS canopy (instead of ROPS cab)	-397 lb -243 kg	-243 lb -110 kg	-211 lb -96 kg	-183 lb -83 kg	-160 lb -72 kg		
Bucket teeth (instead of bolt-on cutting edge)	-99 lb -45 kg	+127 lb +58 kg	+111 lb +50 kg	0 lb 0 kg	0 lb 0 kg		
15.5-25-12PR (L2) tires	-264 lb -120 kg	-161 lb -73 kg	-140 lb -64 kg	-121 lb -55 kg	-106 lb -48 kg		
15.5-25-12PR (L3) tires	-154 lb -70 kg	-93 lb -42 kg	-81 lb -37 kg	-73 lb -33 kg	-63 lb -29 kg		
17.5-25-12PR (L2) tires	0	0	0	0	0		
17.5-25-12PR (L3) tires	+88 lb +40 kg	+57 lb +26 kg	+50 lb +23 kg	+39 lb +18 kg	+35 lb +16 kg		
WA250-3		Straight	Full Turn	Straight	Full Turn		
ROPS canopy (instead of ROPS cab)	-529 lb -240 kg	-369 lb -167 kg	-321 lb -146 kg	-247 lb -112 kg	-219 lb -98 kg		
Bucket teeth (instead of bolt-on cutting edge)	-209 lb -95 kg	+266 lb +121 kg	+233 lb +105 kg	0 lb 0 kg	0 lb 0 kg		
17.5-25-12PR (L2) tires	-264 lb -330 kg	-507 lb -230 kg	-442 lb -201 kg	-340 lb -154 kg	-297 lb -134 kg		
17.5-25-12PR (L3) tires	-639 lb -290 kg	-446 lb -202 kg	-389 lb -176 kg	-297 lb -135 kg	-259 lb -118 kg		
20.5-25-12PR (L2) tires	0	0	0	0	0		
20.5-25-12PR (L3) tires	+198 lb +90 kg	+138 lb +63 kg	+120 lb +55 kg	+97 lb +44 kg	+85 lb +38 kg		





Change in dimensions using 15.5-25 tires		
Tread		. No change
Width over tires		- 40 mm
Vertical dimension		- 35 mm
Reach		+ 40 mm
Digging depth		+ 35 mm
Overall length		+ 25 mm
Tires used in specifications 17.5-25-12PR (L2)		
Tread	6'0"	1820 mm
Width over tires		2260 mm
A Wheelbase		2700 mm
B Hinge pin height, max. height		3760 mm
C Ground clearance		430 mm
D Hitch height		810 mm
E Overall height, top of the stack		2990 mm
F Overall height, ROPS canopy		3100 mm

Change in dimensions using 17.5-25 tires Tread	No change - 76 mm - 61 mm
Reach. +3.0" Digging depth +2.4" Overall length +1.5"	+ 76 mm + 61 mm + 38 mm
Tires used in specifications 20.5-25-12PR (L2) Tread	1930 mm 2465 mm 2900 mm
B Hinge pin height, max. height	3865 mm 455 mm 961 mm 3126 mm
F Overall height, ROPS canopy	3246 mm

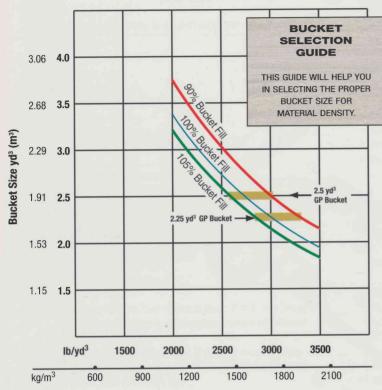
Bucket

The same of the sa		WA1	80-3	WA250-3		
Bucket type (w/B.O.C.) Bucket capacity (SAE rated)		General	Purpose	General Purpose		
		2.25 yd ³	1.7 m ³	2.5 yd ³	1.9 m ³	
Bucket width		8'0"	2440 mm	8'10"	2687 mm	
Static tipping load	Straight	15,073 lb	6837 kg	19,312 lb	8760 kg	
	Full turn (40°)	13,114 lb	5948 kg	16,843 lb	7640 kg	
Dump clearance max. height and 45° dump angle		9'0"	2755 mm	9'4"	2845 mm	
Reach at max height and 45° dump angle		3'6"	1060 mm	3'7"	1085 mm	
Turning radius (bucket at carry outside corner of bucket)	у,	18'0"	5490 mm	19'2"	5840 mm	
Breakout force (bucket cylinder)		20,254 lb	9187 kg	24,575 lb	11147 kg	
Operating weight		22,840 lb	10360 kg	27,540 lb	12492 kg	

All dimensions, weights and performance values based on SAE J-732C and J742B standards. (Bucket only)

- * Operating load per SAE J1197 (Feb, 1991) 50% of static tipping load.
- * Static tipping load and operating weight shown include lubricants, coolant, full fuel tank, ROPS cab, 17.5-25, 12PR (L2) tires (20.5-25, 12PR(L2) for the WA250-3), front fenders and operator. Machine stability and operating weight are affected by counterweight, tire size, and other attachments. Note the following weight changes to operating weight and static tipping loads.

WA180-3 PTC



3.06 4.0 2.68 3.5 2.29 3.0 1.91 2.5 1.53 2.0 1.15 1.5

1200

1500

900

600

kg/m³

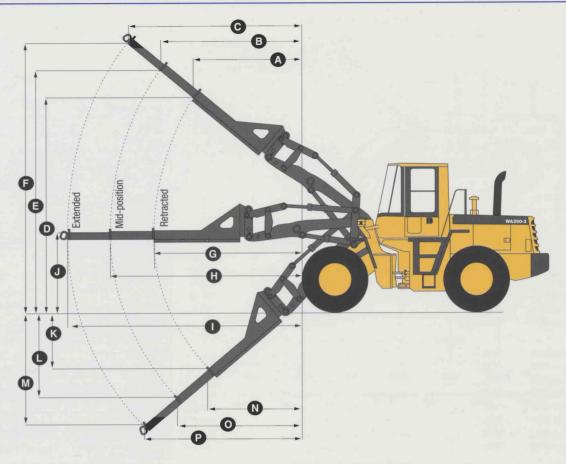
2100

1800

WA250-3 PTC

Material (loose weight)	lb/yd³	kg/m³
Caliche	2,100	1250
Cinders	1,000	590
Clay and gravel, dry	2,400	1420
Clay and gravel, wet	2,600	1540
Clay, dry	2,500	1480
Clay, natural bed	2,800	-1660
Clay, wet	2,800	1660
Coal, anthracite, broken	1,850	1100
Coal, bituminous, broken	1,400	830
Earth, dry, packed	2,550	1510
Earth, loam	2,100	1250
Earth, wet, excavated	2,700	1600
Granite, broken or large crushed	2,800	1660
Gravel, dry	2,550	1510
Gravel, dry 1/2" to 2" (13 to 50 mm)	2,850	1690
Gravel, pit run (graveled sand)	3,250	1930
Gravel, wet 1/2" to 2" (13 to 50 mm)	3,400	2020
Gypsum, crushed	2,700	1600
Limestone, broken or crushed	2,600	1540
Magnetite, iron ore	4,700	2790
Phosphate rock	2,160	1280
Pyrite, iron ore	4,350	2580
Sand and gravel, dry	2,900	1720
Sand and gravel, wet	3,400	2020
Sand, dry	2,400	1420
Sand, wet	3,100	1840
Sandstone, broken	2,550	1510
Shale	2,100	_1250
Slag, broken	2,950	1750
Stone, crushed	2,700	1600
Topsoil	1,600	950

^{*} This guide, representing bucket sizes not necessarily manufactured by Komatsu, will help you select the proper bucket size for material density, loader configuration, and operating conditions. Optimum bucket size is determined after adding or subtracting all tipping load changes due to optional equipment. The 90% bucket fill line on this guide is recommended when operating in conditions such as soft ground and unlevel surfaces. The 105% bucket fill condition on this guide is sometimes utilized when operating on firm ground and level surfaces.



WA180-3 Tool Carrier information with material-handling arm

Boom Position	Retracted		d	Mid-position			Extended		
Reach, fully raised	Α	6'8"	2027 mm	В	9'1"	2770 mm	С	10'9"	3268 mm
Height, fully raised	D	18'8"	5688 mm	Е	21'5"	6532 mm	F	23'3"	7097 mm
Maximum reach	G	12'5"	3773 mm	Н	16'1"	4897 mm	1	18'6"	5650 mm
Height, Maximum reach	J	6'0"	1825 mm	J	6'0"	1825 mm	J	6'0"	1825 mm
Depth, below ground	K	5'0"	1524 mm	L	7'5"	2255 mm	M	9'0"	2745 mm
Reach, below ground	N	8'4"	2534 mm	0	11'1"	3388 mm	Р	13'0"	3960 mm
Operating Load		3,370 lb	1529 kg		2,649 lb	1201 kg		2,306 lb	1046 kg
Tipping load, straight		7,746 lb	3513 kg		6,088 lb	3475 kg		5,300 lb	2404 kg
Tipping load, 40-degree full turn		6,739 lb	3057 kg		5,297 lb	2402 kg		4,611 lb	2092 kg
Operating weight		22,448 lb	10180 kg		22,448 lb	10180 kg		22,448 lb	10180 kg

WA250-3 Tool Carrier information with material-handling arm

Boom Position	Retracted		Mid-position			Extended			
Reach, fully raised	Α	7'2"	2190 mm	В	9'9"	2973 mm	С	11'6"	3498 mm
Height, fully raised	D	18'9"	5718 mm	Е	21'5"	6525 mm	F	23'2"	7066 mm
Maximum reach	G	12'5"	3783 mm	Н	16'1"	4907 mm	1	18'6"	5650 mm
Height, Maximum reach	J	6'5"	1955 mm	J	6'5"	1955 mm	J	6'5"	1955 mm
Depth, below ground	K	5'5"	1642 mm	L	7'11"	2413 mm	M	9'7"	2930 mm
Reach, below ground	N	7'9"	2354 mm	0	10'5"	3172 mm	Р	12'3"	3720 mm
Operating Load		4,213 lb	1911 kg		3,332 lb	1512 kg		2,914 lb	1322 kg
Tipping load, straight		9,684 lb	4392 kg		7,660 lb	3475 kg		6,699 lb	3038 kg
Tipping load, 40-degree full turn		8,425 lb	3822 kg		6,664 lb	3023 kg		5,828 lb	2644 kg
Operating weight		26,344 lb	11947 kg		26,344 lb	11947 kg		26,344 lb	11947 kg

WA180-3/WA250-3 Parallel Tool Carrier



STANDARD EQUIPMENT

- Alternator, 50A
- Back-up alarm
- Back-up lights, rear
- Batteries, 2x12V/110 Ah
- Bucket positioner (automatic)
- Cigarette lighter, ashtray
- Counterweight, standard & additional
- · Differentials, torque proportioning
- Dome light, cab
- Engine, Komatsu Diesel S6D102E-1
- Engine shut-off system, electric
- Exhaust pipe, curved
- Fenders, full front and partial rear
- Floor mat
- Horn, electric
- Instrument panel, analog type
- JRB hydraulic quick coupler
- Lights
- WA180-3: Stop and tail, Turn signal (2 front, 2 rear) with hazard switch, Working (2 front high/low beam w/indicator, 2 rear, 2 in cab)
- WA250-3: Stop and tail, Turn signal (2 front, 2 rear), Working (2 front high/low beam w/indicator, 2 rear, 2 in cab)
- Parking brake, wet multi-disk type
- Radiator mask, hinged
- Rearview mirrors
- ROPS cab
- Seat, cloth, suspension, reclining type with armrests and headrest
- Seat belt, 3" width
- Self-leveling parallel loader linkage
- Service brakes, wet disc type
- Speedometer (mph)
- Starting aid, intake manifold preheater type
- Starting motor, 24V/5.5 kW
- WA180-3: Steering, full hydraulic power
- WA250-3: Steering wheel, tiltable
- Sun visor
- Tires
 - WA180-3: (17.5-25-12PR, L2 tubeless) and rims WA250-3: (20.5-25-12PR, L2 tubeless) and rims
- Transmission, (4F, 4R)
- Transmission control, electric
- 2-spool valve with mono lever
- Vandalism protection kit
- Wiper/washer, front and rear



OPTIONAL EQUIPMENT

- Air conditioner with heater/defroster/pressurizer
- Auxiliary steering
- Boom kickout (automatic)
- Brand preference, Goodyear
- Bucket teeth (ESCO bolt-on type)
- Cutting edge, bolt-on, reversible
- Fenders, rear full
- Heater/defroster/pressurizer
- Hydraulic adapter kit
 - 3-spool valve
- Lever for third spool
- Piping for third spool
- JRB bucket
- WA180-3: **2.25 yd**³ general purpose bucket for use with coupler **2.50 yd**³ general purpose bucket for use with coupler
- WA250-3: **2.5** yd³ general purpose bucket for use with coupler **3.0** yd³ general purpose bucket for use with coupler
- JRB 48" construction forks for use with coupler
- Mud quard, front fenders
- Radio, AM/FM with stereo cassette
- ROPS canopy
- Seat, vinyl, reclining with armrests, suspension type
- Tires

WA180-3: (bias ply)

- -15.5-25-12 PR (L2)
- ---15.5-25-12 PR (L3)
- —17.5-25-12 PR (L3)
- —Rims only (for 15.5-25/17.5-25 tires)

WA250-3: (bias ply)

- -17.5-25-12 PR (L2)
- —17.5-25-12 PR (L3)
- -20.5-25-12 PR (L3)
- -Rims only for 17.5-25 tubeless tires
- -Rims only for 20.5-25 tubeless tires

WA180-3: (radial ply)

- -15.5-R25 XTLAT (L2) Michelin
- -17.5-R25 XTLAT (L2) Michelin
- -17.5-R25 XHAT (L3) Michelin

WA250-3: (radial ply)

- -17.5-R25 XHAT (L3) Michelin
- -20.5-R25 XTLAT (L2) Michelin
- -20.5-R25 XHAT (L3) Michelin
- Tool kit

SUPPORT

Count on Komatsu and your local distributor for the support you deserve. Our success depends on satisfying your need for productive equipment and supporting that equipment. That's why we have one of the largest and strongest heavy-equipment distributor organizations in North America. Their personnel are not only trained to help you select the equipment that is best-matched for your business but to support that equipment.

Finance Through its finance company, Komatsu can offer you a wide variety of financing alternatives designed to meet your needs. Programs include municipal leases for governmental agencies, conditional sales contracts, and leases with \$1 purchase options for customers interested in owning their equipment. Ask your distributor about Komatsu leasing. We offer finance and operating leases and the unique Advantage Lease which offers you predetermined purchase, return, and renewal options.

Parts Three computer-linked parts distribution centers provide fast access to anywhere in the U.S. and Canada. Most parts are available overnight. Plus, Komatsu distributors keep a large assortment of commonly used parts in stock for immediate access.

Remanufactured parts Save money and still have the same warranty as new parts at a fraction of the cost with like-new remanufactured parts.

Maintenance Take advan-

tage of the experience we have gained and ask your distributor about our factory-supported programs including: regular scheduled maintenance, oil and wear analysis, diagnostic inspections, undercarriage inspections, training, special service tools, parts programs, and even a special software program to help your distributor keep track of and manage service-related data.

AESS436-00

Printed in USA

SN-11/97(15M)

11/97 (EV-1)



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