

# KOMATSU VANGUARD SERIES

- Komatsu-built components throughout the machine assure years of reliability and high-performance service.
- The operator's compartment offers excellent comfort and superior visibility.
- Smooth column shift transmission control levers and a single work-equipment control lever provide high maneuverability.
  - Wet disc brakes ensure highly reliable operation even in muddy terrain.
  - Torque proportioning differentials minimize tire slippage for extended tire life and efficient traction.
    - Greater breakout force and fast cycle time with Z-bar loader linkage assure high productivity.
    - The maintenance-free wet disc brakes and sealed loader linkage facilitate minimized maintenance. Flywheel horsepower: 94 HP (70 kW) at 2400 RPM

Bucket capacity: 1.4 m³ (1.8 cu.yd)
Operating weight: 7560 kg (16,670 lb)

# Highly responsive and maneuverable



The speed control and direction change levers provided on the side of the steering column assure responsive, light-touch manipulation.



Smooth, light-touch steering: The priority valve system guarantees light-touch steering at all times. An advanced hydraulic design in the steering circuit gives the WA150-1 a smooth steering action and maximized operator comfort while minimizing soil spillage.

# Enhanced comfort in the cab



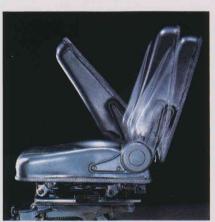
Spacious, comfortable cab (optional):
The use of a cab with expansive tinted glass relaxes the operator and improves his visibility. Erogonomically arranged instruments, control levers and pedals boost operating efficiency. The cab is mounted on the rear frame with rubber pads to minimize noise

and vibration.

# An efficient operating environment



A smooth, easy-tomanipulate single lever for workequipment control is located within easy reach.



Oil-suspension seat (optional): The seat is up/down and fore/aft adjustable with cushion hardness also varying according to the operator.

> High component reliability: All components are designed and manufactured by Komatsu for maximum reliability and performance.





High machine stability: A centerpin-supported rear axle and large oscillation angle maintain level operation on even the roughest surfaces. This, plus a long wheelbase, wide tread give the WA150-1 high stability for efficient digging/carrying operations.

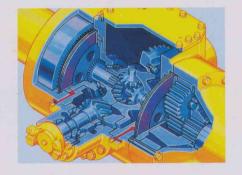
The Komatsu S6D95L diesel engine delivers a lugging 94 HP (70 kW). This dynamically balanced 6-cylinder engine assures quiet, economical operation.



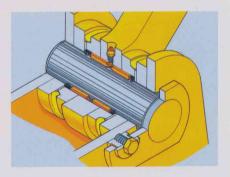
## Minimum maintenance for less downtime



The compact cluster gauges are conveniently located for easy checks.



Wet disc brakes are adjustmentfree. Sure braking performance is maintained even when the machine is operated on muddy terrain. The torque proportioning differential minimizes tire slippage for extended tire life.



Sealed loader linkage pins need less maintenance. Bucket hinge and linkage pins are lubricated and protected by dust seals. As a result, lubrication intervals are greatly extended.

## **SPECIFICATIONS**



#### **ENGINE**

The Komatsu S6D95L, is a 4-stroke, water-cooled, overhead valve, direct-injection, turbocharged diesel engine. It includes six cylinders with a 95 mm (3.7") bore x 115 mm (4.5") stroke and a 4.9 ltr. (299 cu.in) piston displacement.

Flywheel horsepower:

94 HP (70 kW) at 2400 RPM (SAE J1349) 95 PS at 2400 RPM (DIN 6270 NET)

Direct-injection fuel system. All-speed mechanical governor. Gear-pump-driven force-lubrication with full-flow filters. All filters are spin-on type for easy maintenance. Dry, cyclopack air cleaner with dust evacuation valve for longer element service. 24 V/5.5 kW electric starting motor. 24 V/25 A alternator. 24 V (12 V x 2)/110 Ah batteries.



#### **TRANSMISSION**

3-element, single-stage, single-phase torque converter. Full powershift, counter shaft type transmission. A modulating function assures shockless speed and directional changes without braking.

Travel speed km/h (MPH)

	Forward	neverse
1st	0-6.8 (4.2)	0 - 7.2 (4.5)
2nd	0-14.2(8.8)	0 - 14.5 (9.0)
3rd	0-34.5 (21.4)	0 - 35.0 (21.7)



#### **AXLES & FINAL DRIVES**

Four-wheel drive system. A semi-floating front axle is fixed to the front frame. Center-pin-supported, semi-floating rear axle with a large oscillation of  $\pm 12^{\circ}$ . Spiral bevel gears for reduction and a planetary-gear, single-reduction final drive. Front and rear torque proportioning differentials of the straight bevel gear minimizes tire slippage, especially on soft terrain.



### **BRAKES**

Service brakes: Hydraulically actuated, inboard-mounted, wet disc brakes actuate all four-wheels. Two pedals provided. The right for normal braking; the left offers braking+transmission neutralizing.

**Parking brake:** Dry disc type applied on front output coupling of transmission.



#### **TIRES**

Front and rear: 14.0-24-12PR (L-2) Rims: 10.00 VA x 24



### STEERING SYSTEM

Center-pivot frame articulation. Full-hydraulic power assisted steering independent of engine RPMs. A wide articulation angle of  $40^{\circ}$  on each side for a minimum turning radius of 5235 mm (17'2") at the outside corner of the bucket.



#### **BOOM & BUCKET**

Z-bar loader linkages are designed for maximum rigidity and offer powerful excavation. Rap-out loader linkage design enables shock dumping to fall off sticky materials. Sealed loader linkage pins with dust seals extend greasing intervals. Bucket corner teeth (optional) not only minimize bucket wear but also increase penetrating force.

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### **BUCKET CONTROLS**

Little effort is required to operate the bucket and boom control lever, assuring smooth, responsive bucket/boom action. In addition, the bucket positioner and the boom kickout device (optional) facilitate repeated digging/loading operations.

Control positions:

Boom . . . . . . . Raise, hold, lower and float Bucket . . . . . . . Tilt-back, hold and dump



#### **HYDRAULIC SYSTEM**

A gear pump for steering and loader control. Capacity (discharge flow) at engine 2400 RPM:

Relief valve setting:

Control valves:

Steering valve (orbit roll)  $\times$  1 for steering control and 2-spool type  $\times$  1 for loader control.

Hydraulic cylinders	Number of cylinders	Bore	Stroke
Boom	2	110 mm (4.33")	595 mm (23.43")
Bucket	1	120 mm (4.72")	423 mm (16.65")

Hydraulic cycle time (rated load in bucket):

Raise...5.0 sec./Dump...1.1 sec./Lower (empty)...3.0 sec.



#### SERVICE REFILL CAPACITIES

Cooling system	18 ltr. ( 4.8 U.S. gal)
Fuel tank	
Engine	
Brake oil tank	
Hydraulic system	38 ltr. (10.0 U.S. gal)
Differential and final drive case (eac	
	14 ltr. ( 3.7 U.S. gal)
Torque converter and transmission	



## **OPERATING WEIGHT**

Operating weight, including rated capacity of lubricant, coolant, full fuel tank, 14.0-24-12PR (L-2) tires, 1.4 m<sup>3</sup> (1.8 cu.yd) capacity bucket and other standard equipment: 7560 kg (16,670 lb)

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gal)/min.

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3.65")

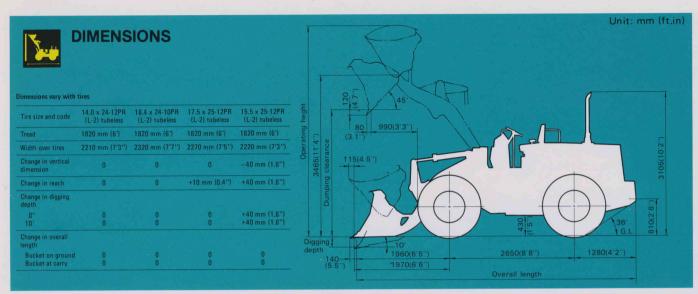
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U.S. gal)

U.S. gal)

ubricant,  $4 \text{ m}^3 (1.8)$ nt: 7560



Bucket type Usage		Straight edge	Straight edge	Straight edge Light material	
		Stockpile	Excavation		
Bucket capacity	SAE rated	1.4 m³ (1.8 cu.yd)	1.2 m³ (1.6 cu.yd)	1.6 m <sup>3</sup> (2.1 cu.yd)	
	Struck	1.1 m <sup>3</sup> (1.4 cu.yd)	1.0 m <sup>3</sup> (1.3 cu.yd)	1.4 m <sup>3</sup> (1.8 cu.yd)	
Bucket width		2390 mm (7'10")	2390 mm (7'10")	2390 mm (7′10′′)	
Bucket weight		520 kg (1,150 lb)	480 kg (1,060 lb)	550 kg (1,210 lb)	
Static tipping load	Straight	5510 kg (12,150 lb	) 5650 kg (12,460 lb)	5510 kg (12,150 lb)	
	Full turn	4760 kg (10,490 lb	) 4800 kg (10,580 lb)	4760 kg (10,490 lb)	
Dumping clearance, max. height and 45° dump angle		2725 mm (8'11'')	2785 mm (8'2")	2670 mm (8'9")	
Reach at 2130 mm (7') cut edge clearance and 45° dump angle		1390 mm (4'7'')	1355 mm (4′5′′)	1415 mm (4'8'')	
Reach at max, height and 45° dump angle		990 mm (3'3")	930 mm (3'1")	1045 mm (3'5")	
Reach with arm horizontal and bucket level		2060 mm (6'9")	1895 mm (6'3'')	2055 mm (6'9")	
Operating height (fully	raised)	4560 mm (15')	4440 mm (14'7")	4645 mm (15'3'')	
Overall length	Bucket on ground	5900 mm (19'4'')	5815 mm (19'1'')	5980 mm (19'7'')	
	Bucket at carry	5890 mm (19'4")	5855 mm (19'3'')	5945 mm (19'6'')	
Turning radius (bucket at carry, outside corner of bucket)		5235 mm (17'2'')	5180 mm (17')	5255 mm (17'3'')	
Digging depth	0°	55 mm (2.2")	55 mm (2.2")	55 mm (2.2")	
	10°	215 mm (8.5")	200 mm (7.9")	225 mm (8.9")	
Lifting capacity (SAE carry)		6690 kg (14,750 lb	6850 kg (15,100 lb)	6670 kg (14,700 lb)	
Breakout force (bucket cylinder)		8500 kg (18,740 lb	9400 kg (20,720 lb)	7270 kg (16,030 lb)	
Rated load		2250 kg (4,960 lb)	2250 kg (4,960 lb)	2250 kg (4,960 lb)	
Operating weight		7560 kg (16,670 lb	7530 kg (16,600 lb)	7610 kg (16,780 lb)	

All dimensions, weights and performance values based on SAE J-732C and J742b standards.

Concerning increases or decreases according to tire size, refer to the table in DIMENSIONS.
 Static tipping load and operating weight shown include 14,00-24-12PR (L-2) tires without ballast in rear, lubricants, coolant, full fuel tank and operator. Machine stability and operating weight are affected by counterweight, tire size and other attachments. Use either tire ballast or counterweight, not both. Add the following weight changes to operating weight and static tipping load.

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			Change in tipping load					
Tires and options	Change in operating weight		Straight		Full turn			
14.0-24-12PR (L-2) tubeless tires	0/*+390 kg	(860 lb)	0/*+560 kg	(1,235 lb)	0/*+460 kg	(1,010 lb)		
18.4-24-10PR (L-2) tubeless tires		(40 lb)/ (1,280 lb)		(33 lb)/ (1,764 lb)		(20 lb)/ (1,500 lb)		
17.5-25-12PR (L-2) tubeless tires		(40 lb)/ (1,190 lb)		(66 lb)/ (1,675 lb)		(30 lb)/ (1,410 lb)		
15.5-25-12PR (L-2) tubeless tires	-80 kg *+320 kg	(180 lb)/ (710 lb)	-55 kg *+405 kg	(120 lb) (893 lb)		(100 lb)/ (820 lb)		
Canopy	+55 kg	(121 lb)	+55 kg	(121 lb)		(110 lb)		
ROPS canopy	+205 kg	(452 lb)	+200 kg	(441 lb)		(375 lb)		
Steel cab	+265 kg	(584 lb)	+215 kg	(474 lb)		(397 lb)		
ROPS cab	+430 kg	(948 lb)	+315 kg	(694 lb)		(595 lb)		
Headguard	+130 kg	(287 lb)	+130 kg	(287 lb)		(243 lb)		
Front half fenders	+30 kg	(66 lb)		0		(18 lb)		
Bucket teeth (one-piece)	+40 kg	(88 lb)		(100 lb)		(90 lb)		
Bucket teeth (two-piece)	+50 kg	(110 lb)		(132 lb)		(110 lb)		
Bolt-on cutting edges	+105 kg	(230 lb)		(265 lb)	-	(230 lb)		
Additional counterweight	+280 kg	(617 lb)	+520 kg	(1,146 lb)	+445 kg	(981 lb)		

<sup>\* 75%</sup> filled ballast for rear tires only.

#### STANDARD EQUIPMENT

**Engine and cooling system:** Starter. Alternator, Preheater.

**Electrical components:** Head lights (2). Front working lights (2). Rear working lights (2). Brake lamp or tail lamp. Turn indicators (front and rear).

**Gauges:** Fuel level. Coolant temperature. Torque converter oil temperature. Service meter. Volt meter.

**Pilot lamps:** Engine preheating. Highbeam. Turn indicators. Parking brake applied

Caution lamps: Engine oil pressure. Brake oil level. Others: Sight gauges (hydraulic reservoir level, transmission oil level, coolant level and brake oil level). Dust indicator. Bucket positioner. General-purpose bucket, 1.4 m<sup>3</sup> (1.8 cu.yd). 14.00-24-12PR (L-2) tubeless tires.

### OPTIONAL EQUIPMENT\_

Canopy
ROPS cab
Steel cab
ROPS canopy
Seatbelt
Air conditioner
Heater and defroster
Rear windshield wiper and washer
Floor mat
Sun Visor
Fire extinguisher

Suspension seat Front and rear fenders Vandalism protection kit Emergency steering

Backup alarm Sider-view mirrors Room mirror

Ashtray and cigarette lighter

Electric fan Speedometer

Pilot lamps (working, emergency steering)

Rear-frame side covers Tool kit

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Ordinary spare parts

Work equipment:

High lift boom

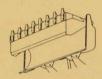
General-purpose buckets, 1.2 m³
(1.6 cu.yd) and 1.6 m³ (2.1 cu.yd)
Bucket teeth (one-piece)
Bucket teeth (two-piece)
Bucket corner teeth
Bolt-on cutting edges
Boom kickout
3-spool control valve
Hydraulic adaptor kit
Backhoe
Lumber fork
Dumping fork

Lumber grapple
1.2 m³ (1.6 cu.yd) multi-purpose bucket

Tires:

18.4-24-10PR (L-2) tubed, tubeless 14.00-24-12PR (L-3) tubed, tubeless 17.5-25-12PR (L-2) tubed, tubeless 15.5-25-12PR (L-2) tubed, tubeless 20.0-24-12PR (L-2) tubeless 17.5-25-12PR (L-3) tubeless, tubed 14.00-24-12PR (L-2) tubeless, tubed 15.5-25-12PR (L-3) tubeless

#### **MULTIPURPOSE BUCKET**



A bucket/blade combination usable as a bucket, blade, scraper or clamshell for allaround loading, topsoil stripping and debris cleaning.

Operating weight . . . 7880 kg (17,370 lb)

Bucket capacity . . . 1.2 m³ (1.6 cu.yd)

Rated load . . . 2000 kg (4,410 lb)

Dumping reach . . . 885 mm (2'11")

Dumping clearance . 2685 mm (8'11")

Bucket width . . . 2400 mm

LUMBER GRAPPLE



Ideal for loading/hauling logs and square lumbers.

Operating weight . . . 8210 kg (18,100 lb)
Rated load . . . . . 3000 kg (6,610 lb)
Dumping reach . . . 1725 mm

Dumping clearance
......2535 mm (8'4")
Max. lifting height

..... 3315 mm (10'11'')
Fork width ..... 1875 mm
(6'2")

**LUMBER FORK** 



Ideal for loading square lumbers and other processed timbers.

Operating weight . . . 7980 kg (17,590 lb) Rated load . . . . 3000 kg (6,610 lb)

Dumping reach . . . 1725 mm (5'8")

Max. lifting height
.... 3315 mm (10'11")
Fork width .... 1875 mm
(6'2")

DUMPING FORK



Suitable for handling small-diameter/short-length logs.

Operating weight . . . 7980 kg (17,590 lb) Rated load . . . . . 3000 kg

(6,610 lb)
Dumping reach . . . 1940 mm
(6'4'')

Dumping clearance
.....2365 mm (7'9")
Max. lifting height

. . . . . . 3275 mm (10'9")
Fork width . . . . . 1500 mm
(4'11")

This specification sheet may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.



(7'10")

ÉQUIPEMENT FÉDÉRAL QUÉBEC LIMITÉE CASE POSTALE 1447. SUCC. ST-LAURENT ST-LAURENT, QC H4L 4Z1 VENTES - PIÈCES - SERVICE (514) 341-4590 ou sans frais 1-800-361-1412

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