

# KOMATSU

*Utility*

WA  
90



WA90-3

WA90-3

WHEEL LOADER

**NET HORSEPOWER**  
51,5 kW 70 PS

**OPERATING WEIGHT**  
5.610 kg

**BUCKET CAPACITY**  
0,9 - 1,6 m<sup>3</sup>

# AT A GLANCE

The new, compact wheel loader WA90-3: is more comfortable, easier to maintain and more efficient in its daily operations. Perfect comfort for the driver and an attractive design based on our experience combined with high performance mean the WA90-3 is a machine enjoying outstanding characteristics. With a hydraulic quick coupler and the comprehensive Komatsu range of attachments, there are hardly any limits to the range of uses to which the vehicle can be put.

*Sliding windows fitted as standard and a high-performance (optional) air conditioner ensure an optimum climate in the cab.*

*Wide, full-length front windscreen for an outstanding view of work equipment and tyres.*

*Simple changing of attachments by means of hydraulic 4-point quick coupler.*  
(Page 5)

*Maximum flexibility in using the comprehensive range of Komatsu Original Attachments.*  
(Page 5)



*Limited-slip differentials fitted as standard equipment in both axles and radial tyres ensure optimum traction.*

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Simple operation by means of a servo-controlled *multi-function lever*. (Page 4)

Smooth-running, 4-cylinder *Komatsu emissionized engine*. Holding the „Blue Angel“ award on account of its outstanding quietness. (Page 4)

*Rounded rear* with wide, angled counterweight make for optimum visibility and easy material stock piling.

*Hydrostatic transmission* for evenly-balanced, high penetration power, and a maintenance-free brakes.

**The new WA90-3:  
Simply operated, simply  
because it's comfortable.**



# WA90-3 Wheel loader



**The driver's cab – driver comfort is comparable with a car**  
Working conditions which are as pleasant as possible for the driver: easily-read, logically arranged gauges and switches, PPC hydraulic system and a multi-function lever all contribute, as do the ergonomically-designed driver's seat and the perfectly-designed fresh air intakes, to maximum driver comfort. Attention to detail, such as the sliding window fitted as standard on the right, completes the driver-friendly picture.

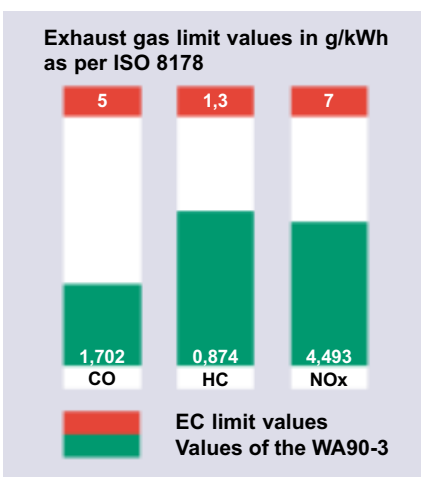


**The air conditioner – For the ideal working environment**  
The optional air conditioner, with its high-performance cooling, contributes substantially to the driver's feeling of well-being, and thus to a high rate of productivity. Thanks to its carefully designed siting on the right-hand side of the frame, it can be swung out as a complete unit for purposes of maintenance.



### Service & maintenance – child's play

Optimum engine accessibility from three sides thanks to the wide opening of the engine-cover. The completely-sealed multiple wet disc brakes operate in an oil-bath and are maintenance free. Automatic central lubrication, available as a special option, reduces daily maintenance to an absolute minimum.



### Environmentally friendly – inside and out

Both internal and external noise levels of the engine are among the lowest in this class, and it has been awarded the „Blue Angel Award“ due to its very quiet operation. It goes almost without saying that the 4-cylinder Komatsu emissionized engine is outstanding in fuel economy and smoothness of running, and meets the EC Stage II limit values with plenty to spare.

# ATTACHMENTS

The Komatsu compact wheel loader demands attention through its incredible versatility. Whether it is used in structural civil engineering, road construction, agriculture, forestry or the timber industry, in landscaping companies and nurseries or in community services, the right solution is always available for your requirements.

The standard equipment 4-point quick-coupler guarantees the machine's versatility and thus makes possible high-intensity operation. The coupler is also compatible with other brands, allowing these, too, to be used without problems.

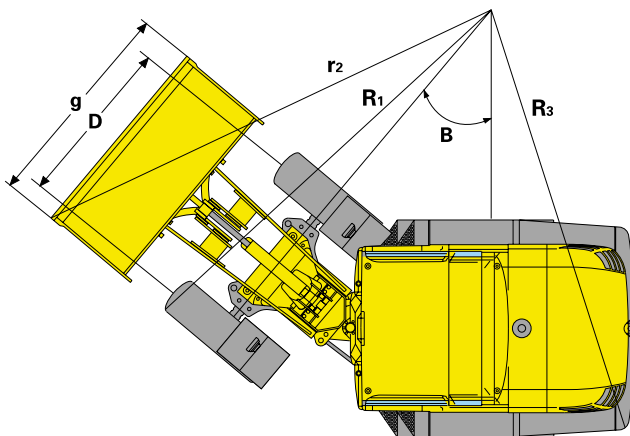
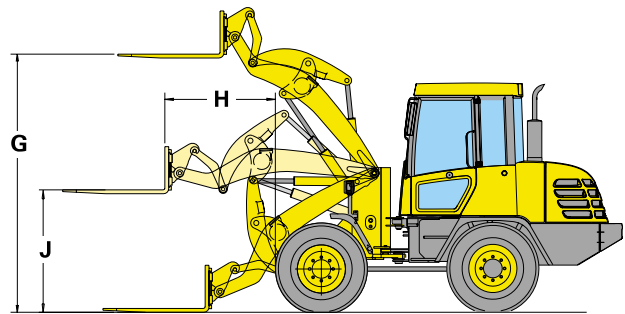
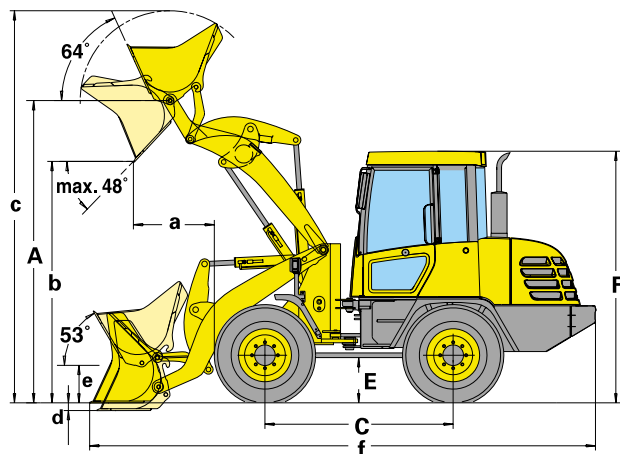
Examples from the comprehensive range of original attachments are:

- Earth-moving bucket
- Light material bucket
- High dump bucket
- Mulch grab bucket
- Fork carrier and tines
- Telescopic crane arm
- 4-in-1 bucket
- Side dump bucket
- Skeleton bucket
- Sweeper





# DIMENSIONS & WORKING VALUES



### Dimensions – Main features

A	Centre hinge pin height	3.420 mm
R1	Turning radius	4.010 mm
R3	Turning radius	4.100 mm
B	Articulation angle	40°
C	Wheelbase	2.150 mm
D	Track width	1.590 mm
E	Ground clearance	480 mm
F	Overall height	2.715 mm

### Dimensions – with fork tines

G	Max. stacking height	3.170 mm
H	Max. reach	1.305 mm
J	Height of fork at max. reach	1.450 mm
	Max. tipping load, straight ISO 8313	3.440 kg
	Max. tipping load, articulated	3.000 kg
	Max. payload as per EN 474-3, 80%	2.400 kg
	Max. payload as per EN 474-3, 60%	1.795 kg

(Fork carrier and tines in standard version. When using with fork carrier and tines, use of bolt-on counterweight is recommended)

### Working values – use of buckets \*

Bucket type		Universal bucket		Lightmaterial bucket		Universal bucket (4-in-1)	Highdump bucket
		1,0	1,1	1,25	1,6		
Bucket (contents heaped)	m <sup>3</sup>	1,0	1,1	1,25	1,6	0,9	1,5
Dumping weight	t/m <sup>3</sup>	1,8	1,7	1,4	1,15	1,8	0,9
Bucket weight without teeth	kg	380	390	410	420	670	770
Stat. tipping load, straight	kg	4.515	4.515	4.510	4.440	4.110	3.700
Stat. tipping load, 40° articulated	kg	3.910	3.910	3.905	3.840	3.515	3.155
Max. breakout force	kN	72,5	72,5	62,5	52,2	69,3	37,9
Max. lifting capacity	kN	57,0	57,0	56,9	55,8	56,2	44,5
Operating weight	kg	5.610	5.620	5.640	5.650	5.900	6.000
a Reach at 45°	mm	785	785	870	970	790	1.135**
b Dumping height at 45°	mm	2.715	2.715	2.625	2.485	2.705	4.225**
c Height bucket top edge	mm	4.465	4.465	4.440	4.535	4.400	5.295
d Digging depth	mm	105	105	105	130	105	105
e Height bucket transport	mm	350	350	350	350	350	350
f Overall length	mm	5.600	5.600	5.720	5.915	5.750	6.295
g Bucket width	mm	2.100	2.150	2.100	2.100	2.112	2.500
r2 Turning radius over bucket	mm	4.435	4.455	4.490	4.550	4.450	4.810

\* All data with 405/70 R20 SPT9 tyres

\*\* at max. dump angle

# TECHNICAL DATA



## ENGINE

Type .....	Komatsu 4D 106E1
Horsepower .....	51,5 kW/70 PS (ISO 9249)
at engine speed .....	2.500 rpm
Torque/engine speed .....	max. 246 Nm/ 1.500 rpm
No. of cylinders .....	4
Bore/stroke .....	106/125 mm
Displacement .....	4.412 cc.
Type of combustion .....	Direct injection
Cooling system .....	Dual circuit, liquid coolant, thermostat-controlled
Electrical system .....	12 V
Battery .....	1 × 12 V, 92 Ah
Alternator .....	80 A
Air filter type .....	Dry air filter with pre-filter and safety cartridge



## TRANSMISSION

Hydrostatic transmission, capable of gear shifting in all directions under full power.

Gears	
Forwards/reverse .....	2/2
Travel speeds	
1st gear .....	0 - 5,3 km/h
2nd gear .....	0 - 20 km/h
Option .....	0 - 30 km/h



## CHASSIS AND TYRES

System .....	4-wheel drive
Axles .....	Planetary rigid axles with automatic limited-slip differential in both axles
Articulation .....	Articulated/oscillating joint
Articulation angle .....	+/- 12°
Tyres .....	405/70 R20 SPT 9 (standard) 16/70 - 20 MPT 14,5 - 20 MPT 365/80 R20 SPT 9, Dunlop 375/75 R20 XM 27 TL, Michelin 405/70 R20 PG 75 R, Dunlop 425/70 R20 XM 27 TL, Dunlop



## STEERING SYSTEM

System .....	Articulated frame steering
Type .....	Hydrostatic steering (closed center)
Steering angle to either side .....	40°
Steering pump .....	Gear pump
Working pressure .....	185 bar
Minimum turning radius (outer corner of tyre) .....	4,01 m



## BRAKES

Operating brakes .....	combined inch brake pedal actuates brakes on all four wheels maintenance-free via the hydrostatic drive. Axle-integrated, oil-bath submerged multiple-disc brakes.
Parking brake .....	Mechanically-operated, oil-bath submerged multiple-disc brake.



## HYDRAULIC SYSTEM

System .....	Closed hydraulic system
Working pressure .....	190 bar
Circulating capacity of the hydraulic pump .....	90 l/min
Lifting time .....	5,6 s
Lowering time .....	3,7 s
Dumping time .....	1,1 s



## SERVICE REFILL CAPACITIES

Fuel tank .....	130 l
Engine cooling system .....	17,0 l
Engine oil .....	16,4 l
Attachment, steering and motive power hydraulics .....	94,0 l
Front axle .....	6,5 l
Rear axle with transmission gears .....	11,0 l

## STANDARD EQUIPMENT

- |   |   |   |   |
|---|---|---|---|
| <ul style="list-style-type: none"> <li>• Standard bucket 1,0 m<sup>3</sup> (SAE heaped)</li> <li>• Hydraulic 4-point quick coupler</li> <li>• „Return-to-dig“</li> <li>• 3rd control circuit for attachment hydraulics</li> <li>• Hitch</li> <li>• Wide base tyres series 70</li> <li>• Quick-check panel</li> <li>• Two-door safety cab, as per DIN/ISO</li> <li>• with roof protection ROPS/FOPS</li> <li>• All-round tinted glass</li> </ul> | <ul style="list-style-type: none"> <li>• Sliding side-window, on the right</li> <li>• Heated rear window</li> <li>• Adjustable high-comfort operator seat</li> <li>• Safety belt (EC standard)</li> <li>• Heating</li> <li>• PPC hydraulic system</li> <li>• Multi-function lever for transmission/hydraulics</li> <li>• Working hours meter</li> <li>• Temperature indicator for engine cooling system</li> <li>• Fuel indicator</li> <li>• 2 main lights</li> </ul> | <ul style="list-style-type: none"> <li>• 2 each halogen working lights front and rear</li> <li>• 2 turning lights</li> <li>• 2 turning lights, rear</li> </ul> <p>General operating certification, in accordance with German Road Traffic Regulations.</p> <p>The WA90-3 is equipped in accordance with the safety regulations of the machinery guidelines, and corresponds in its exhaust gas emission values with</p> | <p>the regulations of the international standard ISO 6393 and EC Stage II regulations.</p> <p>WA90-3: Awarded the Blue Angel on account of quietness in operation: noise values LwA 98 dB(A), LpA 73 dB(A).</p> |
|---|---|---|---|

## OPTIONAL EQUIPMENT

- |   |   |   |   |
|---|---|---|---|
| <ul style="list-style-type: none"> <li>• ALS Automatic Load Stabiliser</li> <li>• Over-centre valve</li> <li>• 30 km/h version</li> <li>• Air-conditioner</li> <li>• Additional weights front axle (2 × 70 kg)</li> <li>• Additional counterweight rear (100 kg)</li> <li>• Light materials bucket 1,6 m<sup>3</sup></li> <li>• Universal bucket 0,9 m<sup>3</sup> (4-in-1 bucket)</li> </ul> | <ul style="list-style-type: none"> <li>• Stock pile bucket 1,25 m<sup>3</sup></li> <li>• Mulch grab bucket 1,0 m<sup>3</sup></li> <li>• Side dump bucket 1,0 m<sup>3</sup></li> <li>• High dump bucket 1,5 m<sup>3</sup></li> <li>• Skeleton bucket</li> <li>• Fork carrier and tines</li> <li>• Telescopic crane-arm</li> <li>• Sweeper</li> <li>• Electr. actuation 3rd circuit</li> <li>• QC electr. lock</li> </ul> | <ul style="list-style-type: none"> <li>• Beacon light</li> <li>• Back-up alarm</li> <li>• Cab air safety system</li> <li>• Exhaust gas particles filter</li> <li>• Air-suspended, heated seat</li> <li>• Radio</li> <li>• Turbo III pre-filter</li> <li>• Electronic anti-theft lock</li> <li>• Battery main switch</li> <li>• Bio-hydraulic oil for hydraulic equipment</li> </ul> | <ul style="list-style-type: none"> <li>• Canopy version</li> <li>• Special livery</li> </ul> <p>Further features on application</p> |
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# KOMATSU

BUSINESS UNIT WHEEL LOADER

[www.komatsu.de](http://www.komatsu.de)