

Doosan Infracore  
Construction Equipment

# MEGA500V

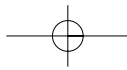
Engine Power : SAE J 1349,net 250kw(335HP)@2,100rpm

Operational Weight : 22,610kg (63,934 lb) (W/O ROPS)

29,800kg (65,698 lb) (W/ROPS)

Bucket capacity(SAE) : 4.8m<sup>3</sup>(6.3 cu.yd)





## Specifications



### Engine "Emissions Certified"

Make and model ..... CUMMINS QSM11 diesel engine  
 Type ..... 4-Cycle, Turbo, CAC-cooled, ECU-controlled, Direct injection  
 Net flywheel horse power (SAE J 1349) ..... 335HP(250kw)/ 2,100rpm  
 Total displacement ..... 10.82 liter(660in<sup>3</sup>)  
 No. of cylinders ..... 6  
 Bore x stroke ..... 125mm(4.92") × 147mm(5.79")  
 Cooling type ..... Sucker plastic fan (34") driven by hydraulic fan motor  
 Air cleaner ..... Dry type(double stage)



### Electrical system

Voltage ..... 24v  
 Batteries, in series ..... 2 × 12v  
 - total capacity ..... 150 Ah  
 - type ..... maintenance-free  
 Starter motor ..... 24v × 25 Kw  
 Alternator capacity ..... 70A



### Torque converter

Type ..... single stage / single phase  
 Torque stall ratio ..... 2.987



### Transmission

Type: Full Auto Power-shift countershaft design with four forward and three reverse speeds.

Control: single lever electric "fingertip" type.

Forward speeds	kph (mph)
1	7.2 (4.5)
2	12.2 (7.6)
3	27 (16.8)
4	35 (21.7)
Reverse speeds	kph (mph)
1	7.2 (4.5)
2	12.2 (7.6)
3	27 (16.8)

Safety device prevents engine starting while in gear



### Axles

Rigid front axle, oscillating rear axle designed for heavy duty applications  
 Rear axle oscillation ..... 20°  
 "Limited Slip" differentials with automatic torque transfer.  
 Hermetically sealed final drives and wet disc brakes



### Brakes

type ..... wet multi disc brakes  
 full hydraulic brake circuit  
 Independent circuit for each axle  
 dual pedal braking system  
 electrical transmission disengagement switch  
 Parking brake: dry disc type  
 Hydraulic control by means of switch in cab  
 The brake circuit complies with the following international standards ..... ISO3450, EEC 71/320, SAE J1473



### Tires

Type ..... Tubeless  
 Choice of ..... 29.5 R25\*1 VSNT(L4)  
 29.5 -25-22PR (L3)  
 29.5 R25\*1 VMT(L3)  
 29.5 R25\*1 VSDL (L5)



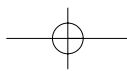
### Hydraulic system

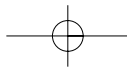
Type ..... sealed system with anticavitation and relief valves  
 Pump ..... vane type with steel case and automatic wear compensation  
 - max. flow delivery ..... 531 ℓ / min (140.3 gal/min)  
 - max. working pressure ..... 200kg/cm<sup>2</sup> (2845psi)  
 Control ..... Pilot, two lever  
 Double-acting hydraulic cylinders  
 Loader arm (2EA)  
 bore x stroke ..... 200mm(7.87") × 902mm(35.51")  
 Bucket (2EA)  
 bore x stroke ..... 160mm(6.29") × 595mm(23.42")  
 Operating time  
 lift ..... 6.5 s  
 lower ..... 3.5 s  
 dump ..... 1.3 s  
 Hydraulic lines and connecting flanges are equipped with O-ring seals.  
 Invaluable for loading and transport on uneven terrain.



### Steering

Type ..... Load sensing orbitrol type steering control, full hydraulic, power steering with flow amplifier.  
 Pump ..... vane type, the hydraulic system pump  
 Max. flow rate ..... 254 ℓ / min (67.1 gal/min)  
 Max. working pressure ..... 185kg/cm<sup>2</sup> (2631 psi)  
 Cylinders  
 bore x stroke ..... 110 mm(4.33") × 465mm(18.30")





## Cab

Modular cab. Excellent all-round visibility.

The ROPS/FOPS complies with the following standards:

ROPS - ISO3471-SAE 1040

FOPS - ISO 3449/SAE J 231

- External sound power level
- Guaranteed sound power level .....Lwa 109 dB(A)  
(According to EU Directive 2000/14/EC)



## Capacities

### ENGINE

Lube oil .....	34 litres (9gal)
Coolant .....	60 litres (16gal)
Fuel tank .....	480 litres (127gal)
Transmission oil .....	50 litres (13gal)
Hydraulic system .....	300 litres (79gal)

### AXLES

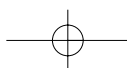
Front .....	50 litres (13gal)
Rear .....	50 litres (13gal)

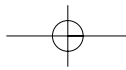
## Standard equipment

- Car stereo(AM / FM)
- 2 Road lights with high / low beams
- 2 Front directional indicators
- 2 Combination : tail light, stop light and directional indicators
- 2 Front and rear working lights
- Hourmeter, speedometer and tachometer
- Electronic display / monitoring system
- Engine coolant temp. gauge
- Torque converter oil temp. gauge
- Fuel level indicator
- Horn
- Fuel level indicator
- Neutral safety start system
- Axle oil cooling system
- Fully adjustable suspension seat and seat belt
- Cab with window washer and wipers and rear view mirrors
- Sunvisor, sliding door windows (LH Only)
- Arm Rest & Wrist Rest
- Front and rear fenders
- Rear frame side covers
- Heater and defroster
- Air conditioner
- Wheel chocks
- Pull hitch
- Automatic electro-magnetic return to dig
- Boom kick - out
- Engine derating system

## Optional equipment

- ROPS canopy
- Auxiliary hydraulic function
- Emergency steering
- Fuel feeding pump
- Fork equipment
- Boom float kick-out
- Rotating beacon
- Under guard
- LIS (Boom suspension) system
- 3-spool piping





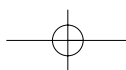
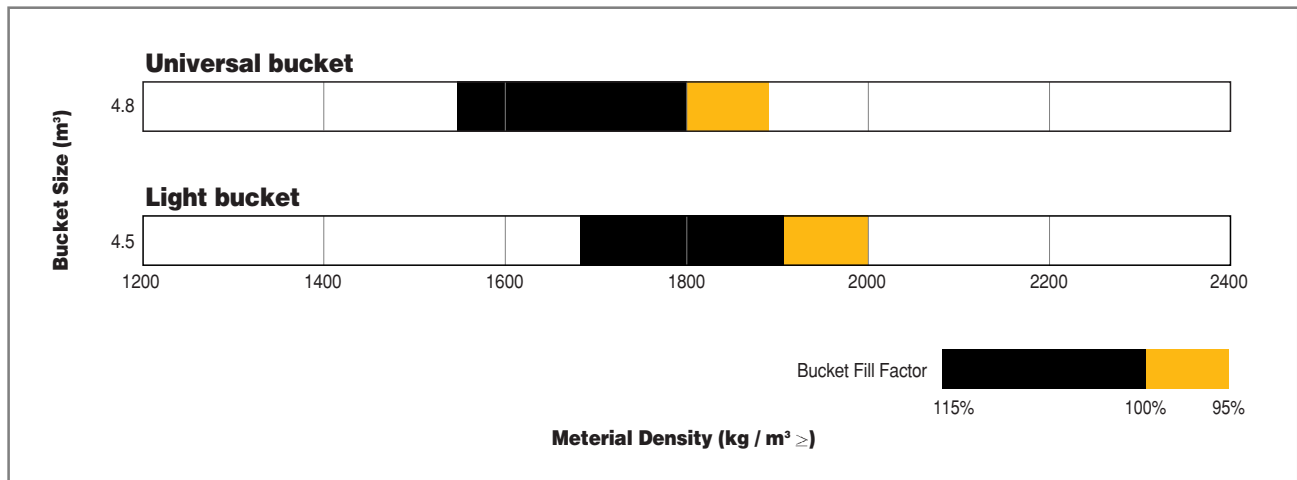
### Weights and dimensions (supplemental specifications)

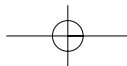
	Operating weight	Overall width (Outside tires)	Vertical dimension	Static tipping load-straight
Remove ROPS	-600 kg (-1,323 lb)	—	—	-500 kg (-1,102 lb)
29.5-R25 VSNT (L4)	+970 kg (+2,139 lb)	—	+35 mm (+1.38 inches)	+800 kg (-1,764 lb)
29.5-R25 VSDL (L5)	+2,000 kg (+4,410 lb)	—	+40 mm (1.57 inches)	+1,600 kg (+3,527 lb)
29.5-R25 XHA TL (L3)	+400 kg (+882 lb)	—	—	+320 kg (+705 lb)

### Typical material densities-Loose

Material	Condition	Density kg/m (lb / yd)	Material	Condition	Density kg/m ≥ (lb / yd ≥)
Gravel	dry	1,510 (2,545)	Clay	natural	1,660 (2,800)
	dry, 6-50 mm	1,690 (2,850)		dry	1,480 (2,495)
	wet, 6-50 mm	2,020 (3,405)		wet	1,660 (2,800)
Sand	dry	1,420 (2,395)	Limestone	soft	1,540 (2,595)
	damp	1,690 (2,850)		hard	1,650 (2,780)
	wet	1,840 (3,100)	Stone	crushed	1,600 (2,700)
Clay & Gravel	dry	1,420 (2,395)	Granite	broken	1,660 (2,800)
	wet	1,540 (2,595)	Slag	broken	1,750 (2,950)
Earth	dry	1,510 (2,545)	Gypsum	broken	1,810 (3,050)
	wet	1,600 (2,700)		crushed	1,600 (2,700)
Sand & Clay	loose	1,600 (2,700)	Basalt		1,960 (3,305)
Sand & Gravel	dry	1,720 (2,900)	Slate		1,250 (2,105)
	wet	2,020 (3,405)	Sandstone		1,510 (2,545)

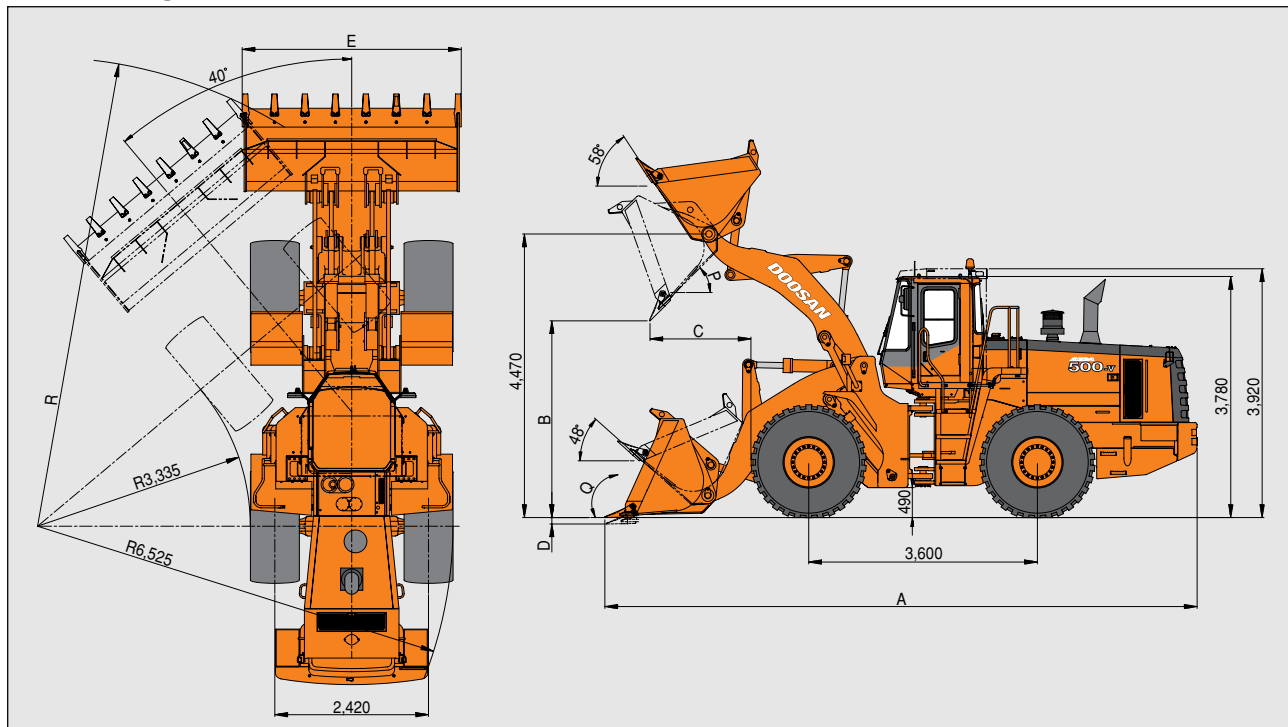
### Bucket selection guide / Material densities





# Dimension

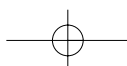
## Z-bar linkage

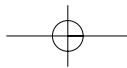


## Specifications

Bucket type	Unit	Universal bucket		Rock-V
		Teeth	Cutting edge	Spade Nose with Teeth
Capacity heaped	m <sup>3</sup> (yd <sup>3</sup> )	4.8(6.3)	5.2(6.8)	4.5(5.9)
Bucket weight	kgf (lb)	2,500(5,512)	2,700(5,952)	2,800(6,173)
E Bucket width	mm (ft.-in)	3,480(11'5")	3,480(11'5")	3,480(11'5")
Static tipping load, straight	kgf (lb)	23,000(50,706)	22,830(50,332)	22,750(50,155)
	ful turn(40°)	kgf (lb)	19,800(43,652)	19,660(43,343)
Breakout force	kgf (lb)	27,000(59,525)	25,000(55,115)	24,500(54,013)
A Overall length	mm (ft.-in)	9,320(30'7")	9,170(30'1")	9,450(31')
B Dump Height at 45°	mm (ft.-in)	3,080(10'1")	3,200(10'6")	3,030(10')
C Dump Reach at 45°	mm (ft.-in)	1,520(4'12")	1,410(4'8")	1,480(4'10")
D Digging depth	mm (ft.-in)	102(4")	90(3.5")	120(4.8")
R Turning radius at bucket	mm (ft.-in)	7,330(24')	7,275(23'10")	7,200(23'7")
Q Max. tilt angle on ground	deg	43	43	43
P Max. dump angle at fully raised	deg	47	47	47
Operating weight (with ROPS Cabin)	kgf (lb)	29,800(65,698)	30,000(66,139)	30,100(66,359)

Measured to the tip of the bucket teeth or cutting edge with tires 29.5X25 (L3)





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 Materials and specifications are subjects to change without prior notice.

