

* | 232 kW (312 HP) at 2000 rpm

▲ | 49900 kg

🏗️ | 2.01 - 3.60 m³



SOLAR500LCV | Crawler Excavator



Technical specifications

* Engine

• Model

DOOSAN DE12TIS

• Piston displacement

11051 cc

• Rated flywheel horse power

232 kW (312 HP) at 2000 rpm

* Hydraulic system

Doosan's e-EPOS (Electronic Power Optimising System) achieves maximum efficiency over a full range of working conditions and reduces fuel consumption.

- Hydraulic system ensures efficient independent and combined operations
- Automatic 2 speed travel system for high traction force and travel speed
- Cross-sensing and fuel saving pump system
- Auto-idle system
- 2 working / 2 power mode selection system
- Computer aided engine pump control

• Main pumps

variable displacement axial piston

• Max. flow rate

2 x 359 l/min

• Main relief valves

Boom/Arm/Bucket

Normal: 320 kgf/cm²

Power boost: 350 kgf/cm²

Travel circuit: 320 kgf/cm²

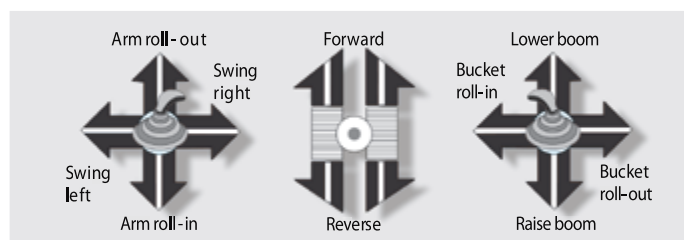
* Implement control levers

• Lever control type

Hydraulic pilot

• Lever pattern

ISO



* Buckets

Capacity (m ³)		Width (mm)		Weight (kg)	Boom: 6300 mm	
PCSA, heaped	CECE, heaped	Without side cutters	With side cutters		Arm: 2400 mm	Arm: 2900 mm
2.01	1.80	1374	1451	1970	A	A
2.85	2.55	1824	1901	2420	A	A
3.20	2.87	2024	2101	2675	A	A
3.60	3.20	2229	2306	2860	A	B

A. Suitable for materials with density of 2000 kg/m³ or less

B. Suitable for materials with density of 1600 kg/m³ or less

* Front

Optimised arm and boom strength.

* Undercarriage

Tractor type undercarriage. Heavy-duty track frame, all welded stress-relieved structure. Top grade materials are used for toughness. Side frames are welded, securely and rigidly, to the track frame. Lifetime-lubricated track rollers, idlers with floating seals and sprockets. Track shoes of induction-hardened rolled alloy with triple grousers. Specially heat-treated connecting pins. Hydraulic track adjusters with shock-absorbing recoil springs. Approximately 50 ton class retractable chassis used for high stability and productivity.

• Shoe width

600 mm

• Tumbler distance

4470 mm

* Weight

Boom: 6300 mm • Arm: 2400 mm • Bucket: PCSA 3.20 m³ • Shoe: 600 mm

Shoe type	Shoe width (mm)	Operating weight (kg)	Ground pressure (kg/m ²)
Triple grouser	600 (std)	49900	0.86
	750	50600	0.70
	800	50900	0.66
	900	51400	0.59

* Fluid capacities

• Fuel tank

620 l

• Cooling system

58 l

• Engine oil

28 l

• Swing drive (each)

4 l

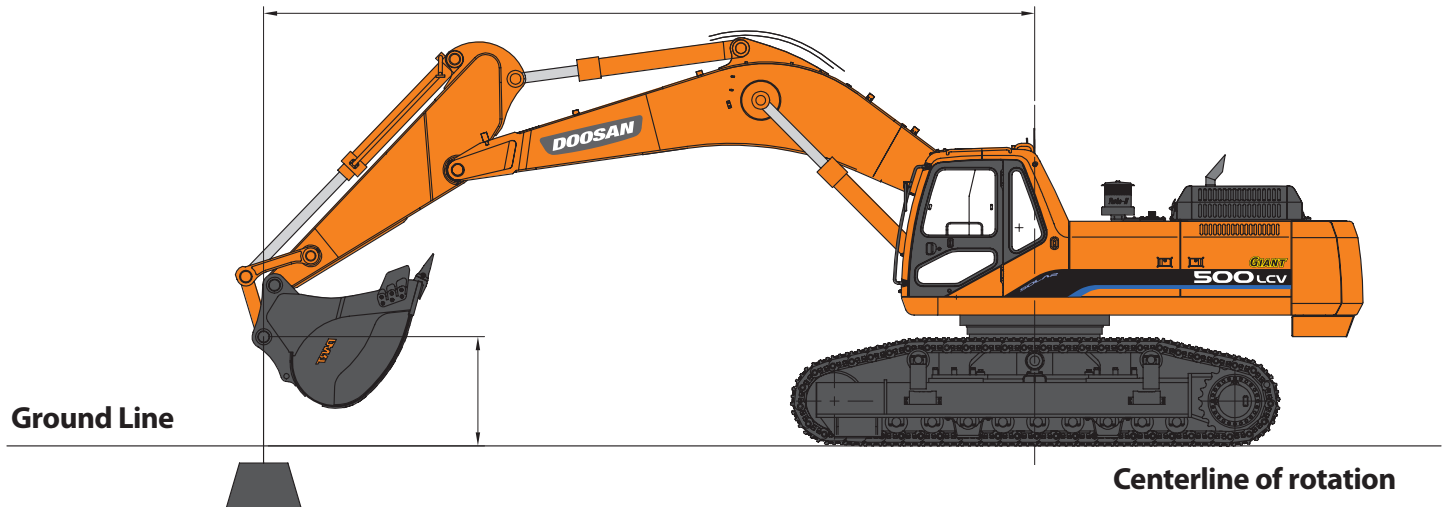
• Final drive (each)

6 l

• Hydraulic tank

265 l

Lifting capacities



Standard configuration

Boom: 6300 mm - Arm: 2400 mm - Bucket: PCSA 3.20 m³ heaped (CECE 2.87 m³) - Shoe: 600 mm

Units: 1000 kg

A (m) \ B (m)	2		3		4		5		6		7		8		Max. reach		A (m)
7											*11.26	*11.26			*11.26	*11.26	7.00
6											*11.64	*11.64			*11.31	*11.31	7.57
5							*15.79	*15.79	*13.68	*13.68	*12.32	*12.32			*11.46	10.91	7.98
4							*18.07	*18.07	*15.05	*15.05	*13.16	*13.16	*11.91	10.67	*11.68	10.15	8.24
3							*20.22	*20.22	*16.40	*16.40	*14.02	13.00	*12.42	10.48	*11.97	9.72	8.37
2							*21.80	21.64	*17.51	16.19	*14.76	12.71	*12.87	10.29	*12.30	9.56	8.38
1					*23.53	*23.53	*22.60	21.23	*18.22	15.87	*15.26	12.49	*13.15	10.15	*12.69	9.65	8.26
0 (Ground)				*28.49	*28.49	*22.66	21.03	*18.44	15.68	*15.43	12.35	*13.15	10.06		*13.11	10.02	8.02
-1			*23.66	*23.66	*27.21	*27.21	*22.06	21.00	*18.13	15.62	*15.16	12.29			*13.58	10.77	7.64
-2	*25.80	*25.80	*30.65	*30.65	*25.30	*25.30	*20.80	*20.80	*17.21	15.66	*14.29	12.34			*14.05	12.11	7.09
-3	*32.27	*32.27	*27.06	*27.06	*22.56	*22.56	*18.73	*18.73	*15.47	*15.47					*14.45	*14.45	6.33
-4			*21.94	*21.94	*18.59	*18.59	*15.43	*15.43							*14.56	*14.56	5.28

1. The load point is a hook located on the back of the bucket.

2. * Rated loads are based on hydraulic capacity.

3. Rated loads do not exceed 87% of hydraulic capacity or 75% of tipping capacity.

: Rating over front



















: Rating over side or 360 degrees

0 : Ground

Option 1

Boom: 6300 mm - Arm: 2900 mm - Bucket: PCSA 3.20 m³ heaped (CECE 2.87 m³) - Shoe: 600 mm



















Units: 1000 kg

B (m)	A (m)		2		3		4		5		6		7		8		Max. reach		A (m)
																			
7																	*9.92	*9.92	7.60
6													*10.65	*10.65	*10.22	*10.22	*10.18	*10.18	8.13
5										*12.55	*12.55	*11.41	*11.41	*10.64	*10.64	*10.36	9.75	8.50	
4					*21.14	*21.14	*16.61	*16.61	*14.01	*14.01	*12.34	*12.34	*11.21	10.67	*10.60	9.13	8.75		
3					*25.17	*25.17	*18.97	*18.97	*15.50	*15.50	*13.31	13.03	*11.82	10.45	*10.88	8.77	8.87		
2					*27.92	*27.92	*20.90	*20.90	*16.81	16.28	*14.19	12.71	*12.39	10.24	*11.22	8.62	8.88		
1					*25.65	*25.65	*22.12	21.36	*17.76	15.90	*14.86	12.45	*12.82	10.07	*11.59	8.68	8.77		
0 (Ground)			*15.79	*15.79	*27.73	*27.73	*22.60	21.05	*18.25	15.65	*15.23	12.27	*13.02	9.95	*12.02	8.96	8.54		
-1	*16.24	*16.24	*21.01	*21.01	*28.25	*28.25	*22.39	20.93	*18.24	15.52	*15.21	12.17	*12.87	9.88	*12.48	9.54	8.18		
-2	*21.40	*21.40	*26.83	*26.83	*26.73	*26.73	*21.52	20.95	*17.66	15.51	*14.69	12.16			*12.98	10.55	7.68		
-3	*26.99	*26.99	*30.50	*30.50	*24.43	*24.43	*19.91	*19.91	*16.38	15.60					*13.49	12.29	6.99		
-4	*32.83	*32.83	*25.89	*25.89	*21.09	*21.09	*17.30	*17.30	*14.08	*14.08					*13.91	*13.91	6.05		
-5			*19.42	*19.42	*16.13	*16.13									*13.90	*13.90	4.72		

Option 2

Boom: 6300 mm - Arm: 2400 mm - Bucket: PCSA 3.60 m³ heaped (CECE 3.20 m³) - Shoe: 600 mm

Units: 1000 kg


B (m)	A (m)		2		3		4		5		6		7		8		9		Max. reach		A (m)
																					
7												*11.10	*11.10			*11.10	*11.10	7.00	*3.09	7.88	
6												*11.49	*11.49			*11.15	*11.15	7.57	*3.09	8.45	
5									*15.63	*15.63	*13.52	*13.52	*12.17	*12.17			*11.30	10.78	7.98	*3.14	8.87
4									*17.91	*17.91	*14.89	*14.89	*13.01	*13.01	*11.76	10.54	*11.53	10.02	8.24	3.14	9.16
3									*20.05	*20.05	*16.24	*16.24	*13.86	12.87	*12.27	10.34	*11.81	9.59	8.37	3.00	9.34
2									*21.62	21.49	*17.34	16.05	*14.60	12.58	*12.71	10.16	*12.14	9.42	8.38	2.93	9.40
1						*23.40	*23.40	*22.42	21.07	*18.05	15.72	*15.10	12.35	*12.99	10.01	*12.53	9.51	8.26	2.91	9.36	
0 (Ground)					*28.29	*28.29	*22.48	20.87	*18.27	15.53	*15.26	12.21	*12.99	9.92	*12.95	9.89	8.02	2.96	9.20		
-1			*23.53	*23.53	*27.02	*27.02	*21.88	20.84	*17.96	15.47	*14.99	12.15			*13.41	10.64	7.64	3.08	8.93		
-2	*25.67	*25.67	*30.43	*30.43	*25.11	*25.11	*20.62	*20.62	*17.04	15.52	*14.12	12.20			*13.88	11.97	7.09	3.29	8.54		
-3	*32.03	*32.03	*26.86	*26.86	*22.37	*22.37	*18.55	*18.55	*15.30	*15.30					*14.29	*14.29	6.33	3.64	8.00		
-4			*21.74	*21.74	*18.41	*18.41	*15.26	*15.26							*14.39	*14.39	5.28	4.21	7.28		

1. The load point is a hook located on the back of the bucket.

2. * Rated loads are based on hydraulic capacity.

3. Rated loads do not exceed 87% of hydraulic capacity or 75% of tipping capacity.

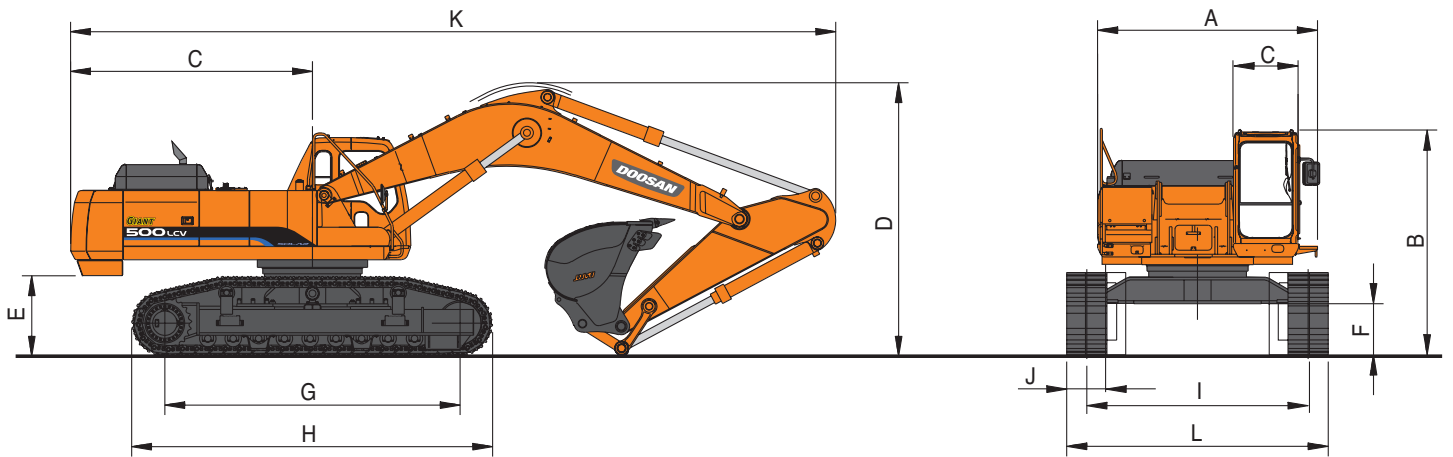
 : Rating over front

 : Rating over side or 360 degrees

0 : Ground

Dimensions and working ranges

GIANT
SOLAR 500 LCV

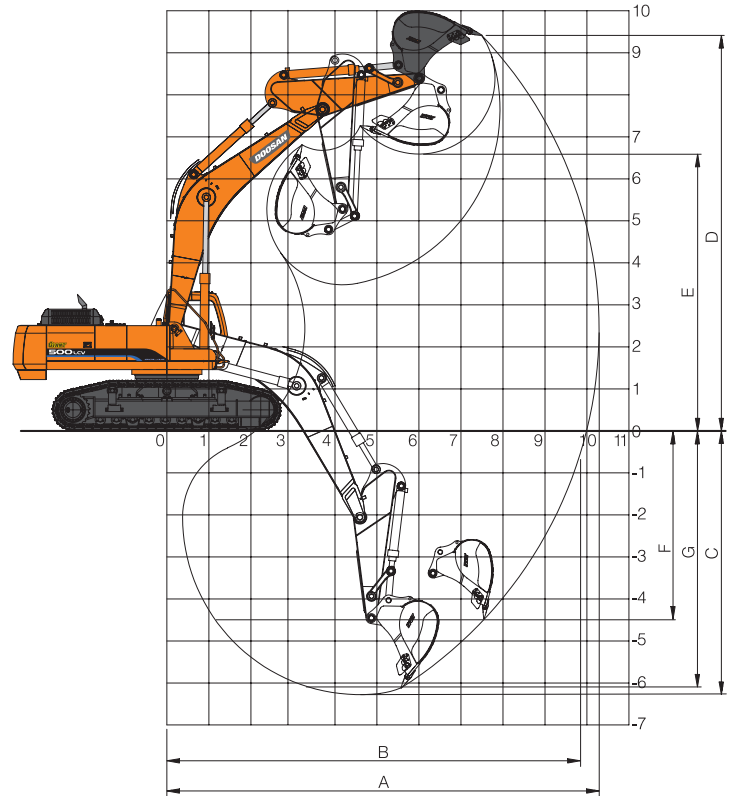


* Dimensions

Boom: 6300 mm • Arm: 2400 mm • Shoe: 600 mm

Boom length (1-piece) - mm		6300	
Arm length - mm		2400	2900
A	Overall width of upper structure / with catwalk - mm	2990 / 3278	2990 / 3278
B	Overall height of cab - mm	3350	3350
C	Tail swing radius - mm	3665	3665
D	Overall height - mm	4140	4250
E	Clearance under counterweight - mm	1220	1220
F	Ground clearance - mm	760	760
G	Tumbler distance - mm	4470	4470
H	Track length - mm	5465	5465
I	Track gauge (Extend/Retract) - mm	3300 / 2740	3300 / 2740
J	Track shoe width - mm	600	600
K	Overall length - mm	11590	11390
L	Overall track width with 600 mm shoe - mm	3900 / 3340	3900 / 3340

* Working ranges



* Digging forces (maximum radial tooth forces)

Arm length - mm		2400	2900
BUCKET*	kgf	27300	27500
	kN	268	270
ARM*	kgf	29400	25400
	kN	288	249

*At power boost

* Working ranges

Boom length (1-piece) - mm		6300	
Arm length - mm		2400	2900
A	Max. digging reach - mm	10290	11520
B	Max. digging reach at ground level - mm	9990	11310
C	Max. digging depth - mm	6280	7725
D	Max. digging height - mm	9410	11000
E	Max. dumping height - mm	6590	7845
F	Max. vertical wall digging depth - mm	521	4400
G	Max. digging depth - mm	6050	7570

Doosan Infracore

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Construction Equipment

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Engines

The spirit of challenge and innovation has led Doosan. We started out as a small store in Seoul in 1896 and have expanded into a global company. Today we are engaged in the infrastructure support business (ISB), which encompasses industrial facilities, machinery, heavy equipment and construction. You can also encounter the Doosan brand in various other industries.

You are invited to take a closer look at the new world that is being built by Doosan, visit us at www.doosaninfracore.com and www.doosanequipment.eu



Doosan Infracore
Construction Equipment