



DX55w | Compact Equipment



DOOSAN DX55w hydraulic excavator: a new model with novel features



The new DX55w hydraulic excavator offers additional value to the operator.

The new DX55w was developed with the concept of “providing optimum value to the end user”.

In concrete terms, this translates into :

- **Increased production and improved fuel economy** achieved with the electronic optimization of the hydraulic system and the new generation engine.
- **Improved ergonomics**, increased comfort and excellent all round visibility ensuring a safe and pleasant working environment.
- **Improved reliability**, using high performance materials combined with new methods of structural stress analysis, have lead to increased component life expectancy, thus reducing running costs.
- **Reduced maintenance** increases the availability and lowers the operating costs of the excavator.



Technical specifications



* Engine

• Model	Yanmar 4TNV98-E
• Number of cylinders / Piston displacement	4 / 3.319 cc
• Nominal flywheel power	40,8 kW (54,7Hp) at 2.400 rpm (SAE J1349, net)
• Max torque	21 kgf.m (206 Nm) at 1.550 rpm
• Bore & stroke	98 mm x 110 mm
• Alternator	12 V / 60 Ah

* Operator's cab

• Noise Levels (dynamic value)	
LWA External noise	Guaranteed Sound Power Level 97,4 dB (A) (2000/14/EC)
LpA Operator noise	76 dB (A) (ISO 6396)

* Hydraulic system

2 Variable displacement axial piston tandem type pumps.
2 Gear pumps and control valve (15-spool) of section block construction.
This original design enables both independent and combined operations of all functions, joystick control type lever.

• Main pumps	2 variable displacement axial piston pumps Max flow: 2 x 60 l/min 1 gear pump Max flow: 36,6 l/min
• Pilot pump	Gear pump - max flow: 20 l/min
• Maximum system pressure	Boom/Arm/Bucket: 230 kgf/cm ² (240 bar) Travel: 230 kgf/cm ² (205 bar) Swing: 210 kgf/cm ² (205 bar)

* Buckets

Capacity (m ³)		Width (mm)		Weight (Kg)	Recommendation
PCSA heaped	CECE heaped	Without side cutters	With side cutters		
0,175 m ³	0,15 m ³	654 mm	724 mm	141 kg	B
0,190 m ³	0,17 m ³	712 mm	784 mm	150 kg	B
0,07 m ³	0,06 m ³	300 mm	362 mm	96 kg	A

A. Suitable for materials with a density less than or equal to 2,000 kg/m³
B. Suitable for materials with a density less than or equal to 1,600 kg/m³

* Swing mechanism

High-torque, axial piston motor with planetary reduction gear bathed in oil. Swing circle is single-row, shear type ball bearing with induction-hardened internal gear. Internal gear and pinion gear immersed in lubricant. A two position swing lock secures the upper structure for transportation.

• Swing speed	8,7 rpm
• Front / Rear swing radius	1.650 mm
• Left / Right Swing angle	80° / 50°

* Drive

Fully hydrostatic driven, 2 speed mechanical shift transmission, variable displacement, high torque, axial piston motor, foot pedal controls provide smooth travel, hub reduction type front steering axle and rear rigid axle.

• Travel speed (high/low)	30/10 km/hr
• Maximum traction force	3.300 kgf
• Maximum grade	35° / 70 %

* Weight

Arm (mm)	Dozer (mm)	Tire	Operating weight
1.600	1.920 x 500	Single	5.550 kg
1.600	2.290 x 500	Double	5.910 kg
1.900	1.920 x 500	Single	5.570 kg
1.900	2.290 x 500	Double	5.930 kg

* Undercarriage

Heavy-duty frame, all-welded stress-relieved structure. Top grade materials used for toughness. Specially heat-treated connecting pins. 12-16.5-12PR(OTR) single tires, front axle oscillating hydraulically (±5°).

* Refill capacities

Fuel tank	120 l
Cooling system (radiator capacity)	10 l
Engine oil	11,6 l
Final drive (each)	1,5 l
Hydraulic tank	72 l

Performance

DX55w ensures best performance with a powerful excavating force and a high-tech hydraulic system for better operating efficiency at any work site! Excellent performance is its basic feature! Overall safety and convenience are also key factors when considering excellent performance.



RPM dial / Auto idle



Auto Fuel feed Pump



Higher gradability and work capability



Comfort

This standard-duty machine, offers a spacious operating area that is only found in medium and heavy-duty machines. The working controls in the cabin are ergonomically designed to ensure convenience and comfort for the operator. Resulting in operator comfort and convenient operation.



Fixed-Type Instrument Panel



High-Output Air-Conditioner and Defroster



2-stage sliding seat

Maintenance

The most advanced technology developed by Doosan Infracore Co., Ltd. was integrated into the DX55w excavator for powerful performance and simple, easy maintenance. This provides the operator with convenient maintenance check points and maximizes the work efficiency of the DX55w.

The reliability of a machine contributes to its overall lifetime operating costs. Doosan uses finite element and 3-dimensional computer simulation.



Easy maintenance



Water separator



Rubber mounting



Air Breather



Grease Piping

Standard and optional equipment

* Standard equipment

• Hydraulic system

- Boom and arm flow regeneration
- Spare ports (valve)

• Cab & interior

- Cab mounted on viscous support
- Air-conditioner
- Aircon filter
- Adjustable suspension seat with adjustable head rest and arm rests
- Sliding front window removable in two parts
- Room light
- Intermittent windshield wiper
- Storage box
- Engine speed (RPM) control dial
- Loudspeakers and connections for radio
- Remote radio control on console
- 12 V power outlet
- PC interface port for Diagnostics
- Hydraulic control levers with 3 switches
- Glass antenna
- Room mirror

• Safety

- Large handrail
- Seatbelt
- Hydraulic safety lock lever
- Safety glass windows
- Hammer for emergency escape
- Emergency engine stop (switch)
- Accumulator

• Undercarriage

- Single tires 12-16,5-12PR
- Heavy duty axle
- Auto ram lock system
- Dozer blade 1920 mm

• Others

- Double element air cleaner
- Fuel pre-filter
- Engine overheat prevention system
- Engine restart prevention system
- Self-diagnostic system
- Alternator 12V, 60A
- Horn
- Halogen working lights
 - Chassis mounted 2
 - Boom mounted 2
- Auto idle
- Fuel tank filling pump
- 2-way valve

* Optional equipment

• Cab & interior

- Seat Heater
- Radio/CD
- Radio/CD/MP3
- Additional working lamp
- Sun visor

• Safety

- Overload warning device
- Rotating beacon
- Boom safety valve

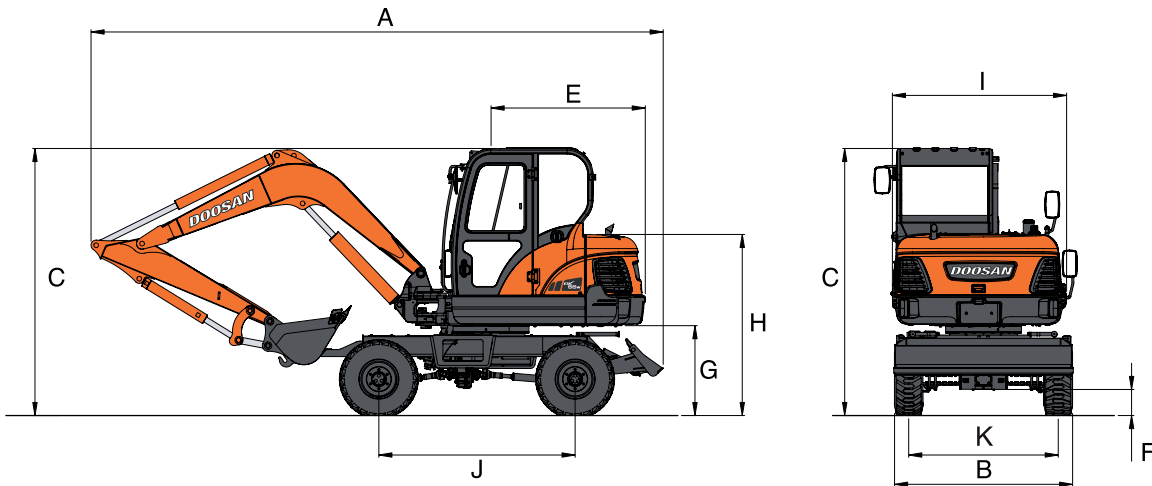
• Others

- Hydraulic piping for crusher
- Hydraulic piping for tilting and rotating
- Hydraulic piping for quick coupler

• Undercarriage

- Double tires 8,25-15-14PR
- Dozer blade 2.290 mm

Dimensions and working ranges



* Dimensions

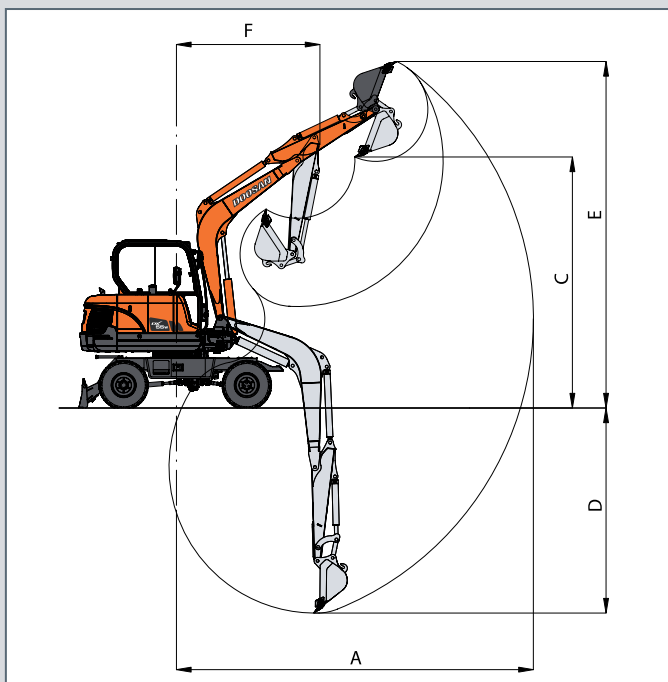
Boom	3.000 mm	
Arm	1.600 mm	
Tire type	Single tire	Double tire
A Overall length	6.120 mm	6.120 mm
B Overall width	1.920 mm	2.290 mm
C Overall height	2.855 mm	2.855 mm
E Tail swing radius	1.650 mm	1.650 mm
F Minimum ground clearance	290 mm	290 mm
G Upper structure ground clearance	980 mm	980 mm
H Engine cover height	1.935 mm	1.935 mm
I Upper structure width	1.850 mm	1.850 mm
J Wheel base	2.100 mm	2.100 mm
K Tread width	1.600 mm	2.275 mm

* Digging force (ISO)

Bucket (PCSA)	0,175 m³	
Digging force	4.060 kgf	39,08 kN

Arm	1.600 mm	1.900 mm
Digging force	2.690 kgf 26,4 kN	2.410 kgf 23,6 kN

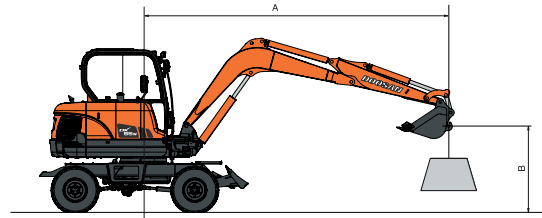
At power boost (ISO)



* Working range

Boom	3.000 mm	
Arm	1.600 mm	1.900 mm
Bucket type (SAE)	0,175 m³	0,07 m³
A Max. digging reach	6.110 mm	6.400 mm
C Max. loading height	4.265 mm	4.455 mm
D Max. digging depth	3.495 mm	3.795 mm
E Max. digging height	5.980 mm	6.170 mm
F Min. swing radius	1.980 mm	1.990 mm

Lifting capacity



DOZER UP, FRONT — Boom: 3.000 mm - Arm: 1.600 mm - Bucket: SAE 0,175 m³

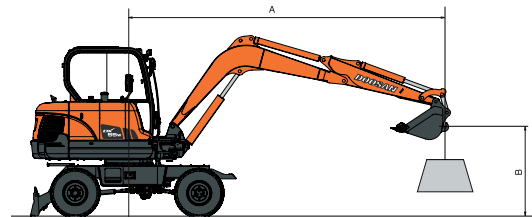
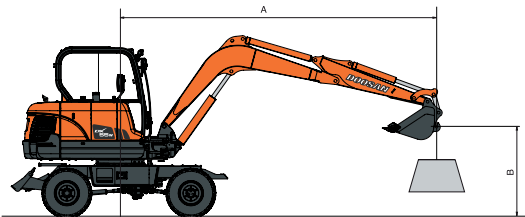
Units: 1.000 kg

B (m)	A (m)		2		3		4		5		Max. Reach		A (m)
	☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	
4							*0,98	*0,98			*0,87	0,82	4,54
3							*1,14	0,99	*0,96	0,68	*0,89	0,68	5,03
2	*2,33	*2,33	*1,90	1,47	*1,44	0,95	1,19	0,67	*0,96	0,62	*0,96	0,62	5,25
1	*1,19	*1,19	*2,61	1,38	1,65	0,91	1,17	0,65	1,08	0,60	1,08	0,60	5,25
O (Ground)	*2,14	*2,14	2,59	1,34	1,62	0,88	1,15	0,64	1,15	0,64	1,15	0,64	5,01
-1	*3,38	2,60	2,58	1,34	1,61	0,88					1,34	0,74	4,51
-2	*4,20	2,65	*2,52	1,36							1,93	1,05	3,60

DOZER UP, FRONT — Boom: 3.000 mm - Arm: 1.900 mm - Bucket: SAE 0,175 m³

Units: 1.000 kg

B (m)	A (m)		2		3		4		5		Max. Reach		A (m)
	☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	
5											*0,79	*0,79	4,10
4											*0,75	0,72	4,89
3							*0,98	*0,98	*1,04	0,68	*0,76	0,61	5,35
2	*2,92	2,87	*1,63	1,49	*1,30	0,95	*1,17	0,67	*0,80	0,56	*0,80	0,56	5,55
1	*1,46	*1,46	*2,41	1,39	1,65	0,91	1,16	0,64	*0,90	0,54	*0,90	0,54	5,55
O (Ground)	*1,99	*1,99	2,58	1,34	1,61	0,88	1,14	0,63	1,04	0,57	1,04	0,57	5,33
-1	*2,97	2,57	2,57	1,32	1,60	0,86					1,19	0,65	4,87
-2	*4,43	2,61	2,58	1,34	1,61	0,88					1,58	0,86	4,05
-3	*2,92	2,70									*2,24	1,92	2,45



DOZER UP/DOWN, REAR — Boom: 3.000 mm - Arm: 1.600 mm - Bucket: SAE 0,175 m³

Units: 1.000 kg

B (m)	A (m)		2		3		4		5		Max Reach											
			Dozer up		Dozer down		Dozer up		Dozer down		Dozer up		Dozer down									
	☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	A (m)	☺	☹	A (m)						
4							*0,98	*0,98	*0,98	*0,98			*0,87	0,82	4,54	*0,87	*0,87	4,54				
3							*1,14	0,99	*1,14	1,22	0,77	0,67	*1,27	0,86	0,71	0,62	5,25	*0,96	0,79	5,25		
2	*2,33	*2,33	*2,33	*2,33	1,71	1,47	*1,90	*1,90	1,10	0,95	*1,44	1,22	0,77	0,67	*1,27	0,86	0,71	0,62	5,25	*0,96	0,79	5,25
1	*1,19	*1,19	*1,19	*1,19	1,62	1,38	*2,61	1,82	1,06	0,91	*1,76	1,17	0,65	0,65	*1,42	0,84	0,70	0,60	5,25	*1,10	0,78	5,25
O (Ground)	*2,14	*2,14	*2,14	*2,14	1,58	1,34	*2,95	1,77	1,03	0,88	*1,97	1,15	0,64	0,64	*1,42	0,83	0,74	0,64	5,01	*1,35	0,82	5,01
-1	3,17	2,60	*3,38	*3,38	1,58	1,34	*2,93	1,77	1,02	0,88	*1,99	1,14					0,86	0,74	4,51	*1,67	0,96	4,51
-2	3,22	2,65	*4,20	3,69	1,60	1,36	*2,52	1,80									1,22	1,05	3,60	*1,94	1,36	3,60

DOZER UP/DOWN, REAR — Boom: 3.000 mm - Arm: 1.900 mm - Bucket: SAE 0,175 m³

Units: 1.000 kg

B (m)	A (m)		2		3		4		5		Max Reach											
			Dozer up		Dozer down		Dozer up		Dozer down		Dozer up		Dozer down									
	☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	A (m)	☺	☹	A (m)						
5													*0,79	*0,79	4,10	*0,79	*0,79	4,10				
4													*0,75	0,72	4,89	*0,75	*0,75	4,89				
3							*0,98	*0,98	*0,98	*0,98	0,79	0,68	*1,04	0,88	0,70	0,61	5,35	*0,76	*0,76	5,35		
2	*2,92	2,87	*2,92	*2,92	*1,63	1,49	*1,63	*1,63	1,10	0,95	*1,30	1,22	0,77	0,67	*1,17	0,86	0,65	0,56	5,55	*0,80	0,72	5,55
1	*1,46	*1,46	*1,46	*1,46	1,63	1,39	*2,41	1,83	1,05	0,91	*1,65	1,17	0,75	0,64	*1,34	0,83	0,63	0,54	5,55	*0,90	0,71	5,55
O (Ground)	*1,99	*1,99	*1,99	*1,99	1,58	1,34	*2,86	1,77	1,02	0,88	*1,91	1,14	0,73	0,63	*1,47	0,82	0,67	0,57	5,33	*1,07	0,74	5,33
-1	*2,97	2,57	*2,97	*2,97	1,56	1,32	*2,95	1,75	1,01	0,86	*2,00	1,13					0,76	0,65	4,87	*1,43	0,85	4,87
-2	3,14	2,61	*4,43	3,64	1,58	1,34	*2,69	1,77	1,02	0,88	*1,78	1,14					1,00	0,86	4,05	*1,74	1,12	4,05
-3	*2,97	2,70	*2,92	*2,92													*2,24	1,92	2,45	*2,24	*2,24	2,45

- The nominal forces are based on the SAE J1097 standard.
- The load point is the hook at the rear of the bucket.
- * = The nominal loads are based on hydraulic capacity.
- The nominal loads do not exceed 87% of the hydraulic capacity or 75% of the capacity of the swing.

☺ : Over front
☹ : Over side or 360°



Doosan Infracore
Construction Equipment

