

DOOSAN

Material Handlers

DX225MH-5

Maximum power	166 hp
Operating weight	24.9 t
Max. bucket pin height	11.7 m
Emission standard	Stage IV



TECHNICAL SPECIFICATIONS

ENGINE

Designed to deliver superior performance and fuel efficiency, the Doosan Stage IV diesel engine fully meets the latest emissions regulations. To optimise machine performance, the engine uses high-pressure fuel injectors, air-to-air inter-cooler and electronic engine controls. 4-Cycle Water-Cooled, Wastegate Turbocharged, Exhaust Gas Recirculation (EGR) & Selective Catalytic Reduction (SCR) with no Diesel Particulate Filter (DPF).

Model

Doosan DLo6P

No. of cylinders

6

Rated power at 1800 rpm

SAE J1995 124 kW (166 hp)
SAE J1349 121 kW (162 hp)

Max. torque

77 kgf·m (755 Nm) @ 1400 rpm

Idle (low - high)

800 [±10] - 1900 [±25] rpm

Displacement

5890 cm³

Bore × stroke

100 mm × 125 mm

Starter

24 V / 6 kW

Batteries - Alternator

2 × 12 V, 150 Ah - 24 V, 80 A

Air filter

Double element air cleaner and pre-filtered Turbo dust separator

UNDERCARRIAGE

Extremely robust construction throughout - made of high-quality, durable materials, with all welded structures designed to limit stresses.

- Track rollers lubricated for life
- Idlers and sprockets fitted with floating seals
- Track shoes made of induction-hardened alloy with double grouser
- Heat-treated connecting pins
- Hydraulic track adjuster with shock-absorbing tension mechanism

Upper rollers (standard shoe)

2

Lower rollers

8

Number of links & shoes per side

49

Link pitch

190 mm

Overall track length

4445 mm

HYDRAULIC SYSTEM

The e-EPOS (Electronic Power Optimising System) is the brain of the excavator - minimising fuel consumption and optimising the efficiency of the hydraulic system for all working conditions. To harmonize the operation of the engine and the hydraulics, the e-EPOS is connected to the engine's electronic control unit (ECU) via a data transfer link.

- The hydraulic system enables independent or combined operations
- 2 travel speeds offer either increased torque or high speed
- Cross-sensing pump system for fuel savings
- Auto-deceleration system
- 4 operating modes, 4 power modes
- Flow and pressure control of auxiliary hydraulic circuits from control panel
- Computer-aided pump flow control

Main pumps

2 × variable displacement tandem axial piston pumps
Maximum flow at 1800 rpm 2 × 206.5 l/min

Pilot pump

Gear pump
Maximum flow at 1800 rpm 27 l/min

Relief valve settings

Pressure up 350 kg/cm²
Travel 330 kg/cm²
Swing 270 kg/cm²
Pilot 40 kg/cm²

HYDRAULIC CYLINDERS

High-strength steel piston rods and cylinder bodies. Shock-absorbing mechanism fitted in all cylinders for shock-free operation and extended piston life.

Cylinders	Quantity	Bore × rod diameter × stroke (mm)
One-piece boom	2	125 × 85 × 1263
Arm	2	115 × 80 × 1068
Attachment	1	120 × 80 × 1060

SWING MECHANISM

The swing mechanism uses an axial piston motor, driving a 2-stage planetary reduction gear bathed in oil for maximum torque.

- Swing bearing: single-row, shear type ball bearing with induction hardened internal gear
- Internal gear and pinion immersed in lubricant

Maximum swing speed

10.9 rpm

Maximum swing torque

8400 kgf·m

CAB

The air-conditioning and heating systems are integrated for optimal climate control. An automatically-controlled fan supplies the pressurised and filtered cab air, which is distributed throughout the cab from multiple vents. The heated air suspension, adjustable operator's seat includes a seat belt. The operator can adjust the ergonomic seat and joystick console separately according to his preferences.

A-weighted emission sound pressure level at the operator's position, LpAd (ISO 6396:2008)

70 dB(A)

A-weighted sound power level, LwAd (2000/14/EC)

Declared: 103 dB(A)

Measured: 101 dB(A)

DRIVE

Each track is driven by an independent, high-torque axial piston motor through a planetary reduction gearbox. Two levers / foot pedals guarantee smooth travel with counter-rotation on demand. The track frame protects the travel motor, brake and planetary gears. The multi-disc track brakes are spring-applied and hydraulic released.

Travel speed (low - high)

3.0 - 5.5 km/h

Maximum traction

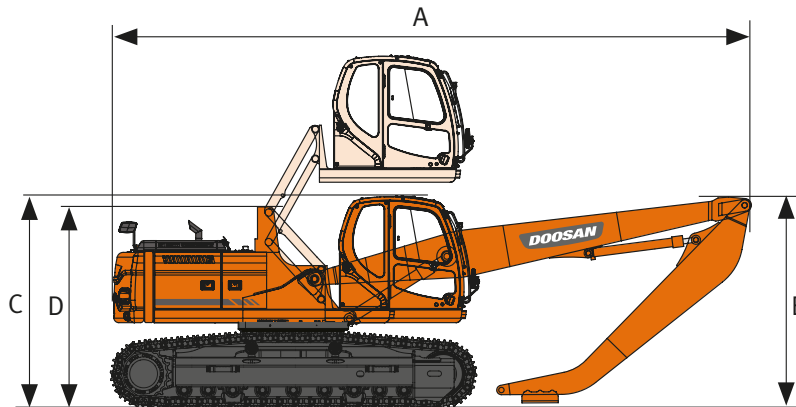
27.5 t

Maximum gradeability

26° / 65%

FLUID CAPACITIES

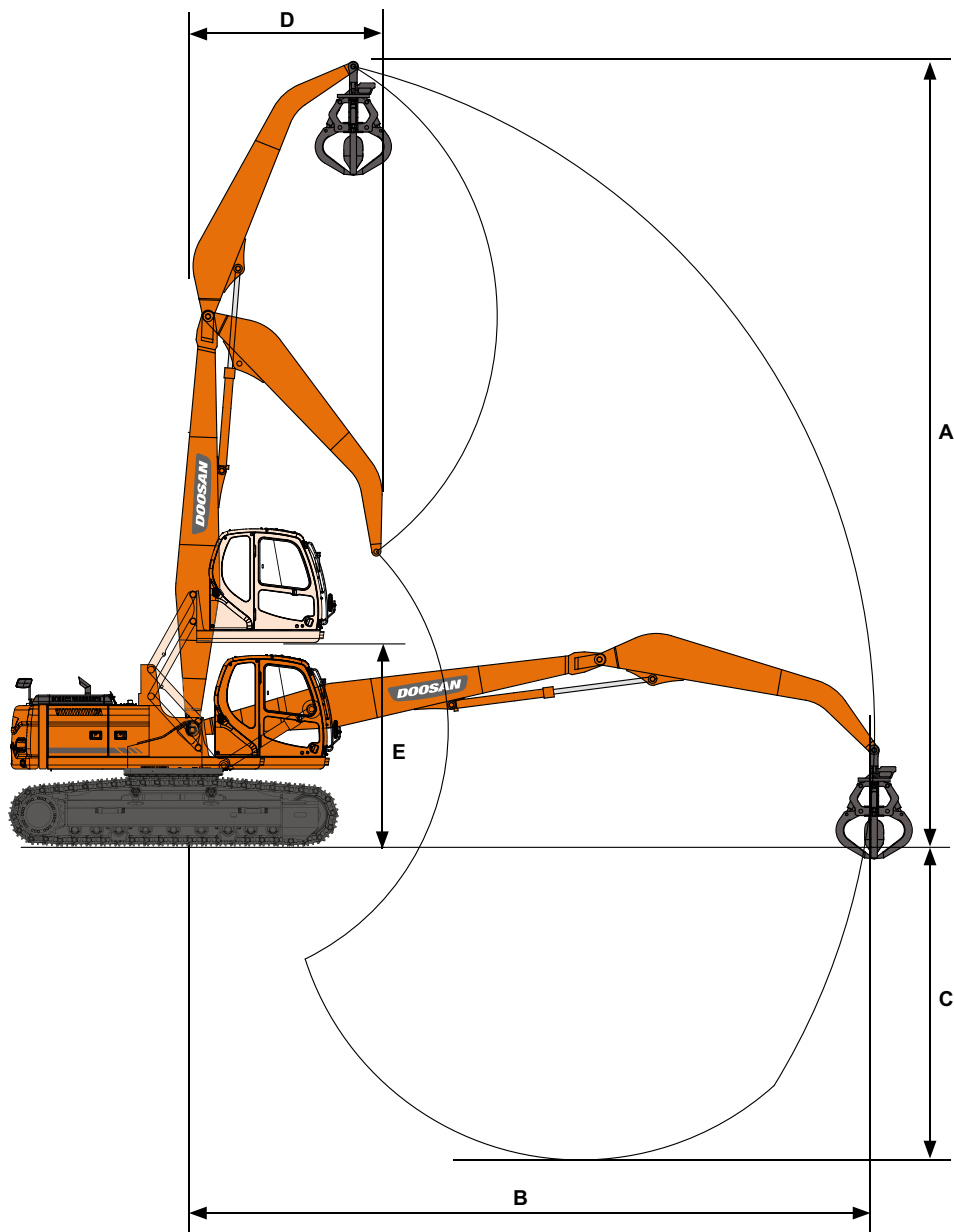
Fuel tank	400 l
Cooling system (radiator)	38.4 l
Urea (def) tank	31.5 l
Hydraulic oil tank	195 l
Engine oil	27 l
Swing drive	5.0 l
Travel device	2 × 3.0 l



DIMENSIONS

Boom length	mm	6500	6500
Arm length	mm	4500 Gooseneck	4000 Straight
A Shipping length	mm	9640	9570
B Shipping height (hose)	mm	3270	3100
C Height over cab (lowered)	mm	3100	3100
D Overall height	mm	3200	3200
Shipping width	mm	2990	2990
Rear swing radius	mm	2770	2770

TECHNICAL SPECIFICATIONS



WORKING RANGE

Boom length	mm	6500	6500
Arm length	mm	4500 Gooseneck	4000 Straight
A Max. pin height	mm	11700	11670
B Max. working reach	mm	10600	10330
C Max. working depth	mm	5200	4680
D Min. swing radius	mm	2900	2900
E Elevating height	mm	2500	2500
Lift capacity at max. reach (front/side)	ton	3.3/2.5	3.5/2.2

W/O ATTACHMENT

(UNIT: kgf)

A	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. reach		
B															A

6.5 m boom • 4.5 m Gooseneck arm

11.5 m					*5230	*5230							*4580	*4580	@6.266
9.0 m					*5640	*5640	*5180	4470					*4020	4010	@7.951
7.5 m					*5610	*5610	*5070	4500	*4080	3240			*3770	3180	@9.086
6.0 m					*5880	*5880	*5180	4410	*4640	3230			*3670	2720	@9.865
4.5 m			*7900	*7900	*6390	6050	*5420	4250	*4720	3150			*3680	2450	@10.368
3.0 m			*9210	8740	*7000	5670	*5710	4040	4630	3030	3630	2350	3550	2300	@10.636
1.5 m			*10190	7960	*7470	5280	*5910	3830	4510	2920	3570	2300	3480	2240	@10.687
0.0 m	*4420	*4420	*10310	7490	*7580	5000	5740	3660	4410	2830	3540	2270	3530	2260	@10.524
-1.5 m	*5370	*5370	*9530	7300	*7190	4850	*5590	3570	4360	2780			*3390	2370	@10.136
-3.0 m	*6450	*6450	*8010	7310	*6240	4820	*4830	3550	*3530	2790			*3000	2620	@9.495

: Rating over front.

: Rating over side or 360°.

1. Lifting capacity is based on SAE J1097, ISO 10567.
2. Load point is the end pin point of front attachment.
3. Lifting capacity does not exceed 75% of tipping load or 87% of hydraulic capacity.
4. (*) indicates load limited by hydraulic capacity.

W/O ATTACHMENT

(UNIT: kgf)

A	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		Max. reach		
B													A

6.5 m boom • 4.0 m Straight arm

10.5 m			*7350	*7350								*5700	*5700	@5.611	
9.0 m					*5890	*5890						*4770	4210	@7.449	
7.5 m					*5840	*5840	*5180	4250				*4370	3230	@8.651	
6.0 m			*7330	*7330	*6090	6080	*5250	4180	4610	3010		*4200	2720	@9.465	
4.5 m	*11880	*11880	*8340	*8340	*6560	5770	*5450	4020	4550	2950	3800	2420	3800	2420	@9.989
3.0 m			*9520	8300	*7080	5390	*5680	3830	4440	2850	3580	2270	3580	2270	@10.268
1.5 m			*10180	7590	*7410	5030	5720	3630	4340	2750	3520	2210	3520	2210	@10.32
0.0 m			*9880	7210	*7330	4790	5570	3490	4260	2680	*3470	2250	3470	2250	@10.151
-1.5 m	*4840	*4840	*8760	7120	*6720	4680	*5200	3420	*3910	2650	*3100	2390	3100	2390	@9.748
-3.0 m	*6600	*6600	*6960	*6960	*5540	4690	*4220	3430	*2670	*2670	*2550	*2550	2550	2550	@9.079

: Rating over front.

: Rating over side or 360°.

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STANDARD AND OPTIONAL EQUIPMENT

● Standard ○ Optional

Engine

- Doosan DLo6P, Stage IV compliant, SCR, EGR, DOC, water-cooled diesel engine with Wastegate Turbocharger and air-to-air intercooler
- Auto-idle function
- Auto shut-off
- No DPF

Hydraulic system

- Boom and arm flow regeneration
- Swing anti-rebound valves
- Spare ports (valve)
- One-touch power boost function
- Smart Power Control (SPC)
- One & two way auxiliary hydraulic line for opening & closing of tool (with pedal & joystick control)
- Cylinder cushioning & contamination seals
- Control of auxiliary hydraulic flow and pressure from the display panel

Cab & Interior

- Pressurised, sound-insulated and CabSus mounted cab
- Heated, adjustable air suspension seat with adjustable headrest and armrest
- Air conditioning with climate control
- Pull-up type front window with sun roller blind and removable lower front window
- Sliding left window
- Intermittent upper windshield wiper
- Rain visor
- Rear window defroster switch
- Adjustable PPC wrist control levers for arm, boom, bucket and swing
- Joysticks and pedals provide proportional control of auxiliary lines for attachments
- Travel pedals and hand levers
- Jog shuttle switch
- 7" (18 cm) TFT LCD colour monitor panel
- Attachment management system
- Engine speed (RPM) control dial
- Automatic travel speed (slow / fast)
- 4 operating modes & 4 working modes
- Electric horn
- Cigarette lighter
- Ceiling light
- Cup holder
- Multiple storage compartments (e.g. document holder under seat)
- Storage area (tools, etc.)
- Hot and cool box
- Flat, spacious, easy-to-clean floor
- Master key
- Anti-theft protection (from control panel)
- 12 V spare power socket
- Serial communication port for laptop PC interface
- Remote radio ON/OFF switch
- Loudspeakers and connections for radio

Safety

- Boom and arm cylinder safety valves
- Overload warning device
- Large guard rails on upper structure and steps
- Rotating beacon
- Rear and side view camera
- Punched metal anti-slip plates
- Hydraulic safety lock lever
- Safety glass
- Hammer for emergency escape
- Right and left rear-view mirrors
- Lockable fuel cap and covers
- Battery cut-off switch
- Engine restart prevention system
- Parking brake
- Work lights (2 front frame, 4 front cab-mounted, 2 rear cab-mounted, 2 boom-mounted and 1 rear side)
- Emergency engine stop switch and hydraulic pump control switch
- FOGS cab - top and front cab guards (ISO 10262)

Other

- Boom: 6500 mm – arm: 4500 mm – counterweight: 4500 kg
- Doosan Connect Telematic system
- Auto shut-off fuel filler pump
- Double element air cleaner and pre-filtered Cyclone Turbo dust separator
- Fuel pre-filter with water separator sensor
- Dust screen for radiator/oil cooler
- Self-diagnostic function
- Alternator (24 V, 80 A) - Battery (2 × 12 V, 150 Ah)
- Hydrostatic 2-speed travel system with automatic shift
- Remote greasing for swing circle and work group pivot points
- Guards for work lights
- Arm: 4000 mm straight
- Quick coupler piping for straight arm
- Additional filter for breaker piping
- Floating boom
- Double pump flow
- Engine coolant heater
- Straight travel pedal
- Alarm for travel & swing

Undercarriage

- Hydraulic track adjuster
- Normal track guards
- Greased and sealed track links
- 600 mm triple grouser shoe
- Rubber pad for 600 mm track shoe

