DOOSAN

Wheeled Excavators |

DX57W-5

Maximum power: 52.3 HP
Operating weight: 5.8 t
Max. bucket capacity: 0.19 m³

DX57W-5 does it all !

Top performance in a versatile package

- Combines 360° rotation benefits for better visibility & adaptability to any work site,
- Brings the large hydraulic capacity of a tool carrier,
- Works in narrow spaces thanks to boom swing,
- Travels with unparalleled speed (up to 20 or 30 km/h depending on country regulations).

And combine all this with an extra reach of above 6 meters & huge lifting capacities, thanks to front axle lock & balanced weight distribution.
Not to forget: you'll get the comfort & reputation of Doosan heavy line excavators!

Work lights: As standard: 2 front frame, 1 front & 1 rear cab mounted, 2 boom mounted.

Reliability: Reinforced boom and arm. Advanced pin & bushing technology. Reinforced swing boom and boom pin.

Productivity: Superior digging, pulling and traction forces.

Safety: Rear vision camera built into the cab. Powerful lighting.

Front axle: Ram lock available for more stability & performance in handling or digging operations.

Frame durability: Chassis frame has been reinforced to reduce stress and improve durability.

Comfort: One of the most spacious cabs in the market, with low noise & vibration levels and excellent all-round visibility. Extra-large door for easy access. Fully adjustable heated air suspension seat, air conditioning with climate control as standard.

Controllability: 3 work & 3 power modes, proportional control, 7" TFT LCD colour monitor user-friendly and adjustable in position, 2 speeds (high, low + creep). Control of the boom swing from the joystick.

Power: Exceptionally powerful - with high torque at low revs - the new Stage IIIB Doosan D24 engine is free from Diesel Particulate Filter (DPF).

Efficient fuel management: The evolution of the new Doosan D24 engine allows up to 15% fuel-savings. The ECO gauge helps monitor fuel consumption. Auto-idle provides an additional reduction, and an electronic injection system continuously adjusts the amount of fuel injected to optimize fuel consumption and reduce emissions.

Easy maintenance: Easy access to all compartments. Maintenance data directly available from control panel.

Advanced filtration: Higher efficiency (featuring air pre-filter as standard).

Efficient & safe: Excellent ground clearance for better protection in rough terrain.

Top performance and fuel efficiency

The power to raise productivity

The DX57W-5 takes even the heaviest tasks in its stride with efficient, dependable performance that saves you time and money:

- Improved hydraulic system uses the engine's power more effectively, maximising pump output and offering more comfort, smoothness and accuracy
- Increased digging power, lifting capacities and traction force combine for performance you can rely on, day after day
- Greater fuel efficiency means you can keep costs down and reduce environmental impact

OPTIMISED POWER MANAGEMENT

The DX57W-5 is equipped with a Doosan D24 engine. Famous for excellent fuel efficiency, reliability and long service life, it combines exceptional power output and high torque at low revs.

Diesel Oxidation Catalyst (DOC) ensures compliance with Stage IIIB regulations. As there is no need for a particulate filter, there is no need for regeneration.

If the engine is the heart of the excavator, the e-EPOS is its brain - providing a perfectly synchronised communication link between the engine's ECU (Electronic Control Unit) and the hydraulic system. A CAN (Controller Area Network) system enables a constant flow of information between engine and hydraulic system, so that power is delivered exactly as needed.

EFFICIENT FUEL MANAGEMENT

- Choice between 3 power modes and 3 working modes guarantees optimum performance in all conditions
- Engine auto-shut-off: shuts down the engine after the machine has been idling for a specified time
- Electronic control of fuel consumption optimises efficiency
- Auto-idle function saves fuel
- Eco guidance in real-time: eco gauge provides information about fuel consumption relative to machine performance in real-time. By trying to keep the right-hand LED bar from rising, the operator can teach himself how to save fuel and work efficiently

Operating in comfort

The ideal workspace – designed around you

The DX57W-5 is designed to provide you with the best possible working conditions. The pressurised cab is ISO-certified for your safety. Its spacious interior offers a fully adjustable, heated air suspension seat. Comfortably seated, you have easy access to several storage compartments and a clear all-round view of the worksite. Noise and vibration levels have been reduced, while air conditioning and automatic climate control allow you to keep working for hours on end without feeling tired.

Best-in-class operator environment

Doosan Wheeled Excavators are powered by industry-leading engines that save on fuel and meet the latest Stage IIIB European regulations in addition to all noise regulations.

The low levels of cab vibration and noise provide exceptional operator comfort - and the cab air is filtered to ensure a healthy work environment.

Comfortable & safe workspace

Doosan offers one of the most spacious cabs in the market. The cab also features Roll Over Protective Structure (ROPS) - meeting the ISO 12117-2 standard - in the event the machine rolls over.

Fully adjustable steering column

The easily adjustable and narrow steering column ensures optimal visibility.

Heated air suspension seat (standard)

In addition to being adjustable and providing lumbar support, the seat has an air suspension system to reduce vibrations. It also features a seat heating system (activated at the touch of a button).

Air conditioning with climate control

The operator can choose from different modes to regulate the airflow, while the system adjusts the air temperature & fan speed to maintain the operator's selected temperature. A recirculated air function is also available.

CabSus mount

The cab's new suspension system (CabSus mount) dampens high vibrations and provides outstanding protection against impact. The system absorbs shocks and vibrations much more effectively than a conventional viscous suspension system.

Total control in all simplicity

The highest standards of efficiency at your fingertips

The advanced & user-friendly technologies are just some of the many advantages of this new generation. The ergonomic controls and the easy-to-view colour monitor place the machine firmly in your hands.

- The new multi-function 7" TFT LCD monitor displays a comprehensive range of useful technical information, allowing you to check the machine's status and settings at a glance
- Highly sensitive & low-effort joysticks and clear convenient controls enable you to work safely, smoothly & confidently with minimum effort for increased comfort, efficiency and production
- Proportional auxiliary flow means precision control, smoothness & efficiency when using attachments

TFT LCD colour monitor panel

The upgraded 7" Thin-Film-Transistor (TFT is a technology that improves image quality) LCD panel features a day and night display. The user-friendly monitor gives full access to machine settings and maintenance data. Any abnormality is clearly displayed on the screen, allowing you to work safely and confidently with an accurate overview of all conditions.

1. Fuel consumption level: current, total & daily average fuel consumption
2. Fuel level
3. AdBlue® level
4. Eco symbol: changes colour when operating conditions change (idle, normal or loading)
5. Eco gauge: shows the average fuel efficiency
6. Engine coolant and hydraulic oil temperatures
7. Warning symbols
8. New shortcut menu: displayed on the right for rapid access to main functions
9. Anti-theft password-controlled starting
10. Oil filter information
11. Daily operational data

Dynamic power management

- A one-touch deceleration button immediately reduces engine speed to low or idle
- Auto-idling starts 4 seconds after all controls are returned to neutral - decreasing fuel consumption and reducing noise levels in the cab

Your safety

Standard cab and boom lights, large side mirrors and rear view camera improve all-round visibility and thus safety. Other standard safety features: automatic overheating alarm warning, low oil pressure sensor, engine emergency cut-off switch, overload warning device.

3 Work modes & 3 Power modes

Deliver the needed power according to your specific application while minimising fuel consumption:

- 1-way mode, 2-way mode and Digging mode
- Power mode, Standard mode and Economy mode

Adjustable monitor panel

The upgraded LCD panel is also adjustable to match each operator's needs.

More durability – less maintenance

Dependable performance for low lifetime cost

A reinforced chassis provides strength, while the optimised boom shape ensures uniform load distribution for more durability. Top quality materials, the most advanced computer-aided design and endurance testing under the most demanding conditions ensure your excavator will keep on performing.

The DX57W-5 is designed for low maintenance, with longer intervals, resulting in more machine availability on site, while skilled Doosan-trained technicians are available to provide extra support when needed. The new Doosan D24 engine has no need for a DPF filter, which means no maintenance required, so more uptime.

Maintenance access made simple

- A battery cut-off switch makes it easy to disconnect the battery during long-term storage
- The hour meter display can be easily checked from ground level
- For extra accessibility and servicing convenience, all filters (engine oil filter, fuel pre-filter, fuel filter and pilot filter) are accessible from ground level. Engine parts can be easily reached via the rear bonnet

Longer service intervals

More than 99.5% of foreign particles are filtered out in oil return filters and engine oil filters - so the oil & filter change interval is longer.

Pin & bushing advanced technology

The boom and arm are connected with castle nut and split pin for a simple, robust, reliable system.

Highly lubricated metal is used for the boom pivot to increase the component's lifetime and lengthen greasing intervals. The bucket pivot features EM (Enhanced Macrosurface) bushings, which have a tailored surface pattern and self-lubricating coating to optimise greasing and make removal of debris more efficient. Ultra-hard wear-resistant discs & bucket pivot polymer shim increase durability even more.

Advanced filtration

Cyclonic air pre-cleaner: air filter life & engine efficiency are directly related to the amount of debris ingested through the engine's air intake. Therefore, a cyclonic air pre-cleaner (as standard) is the first stage of an air intake system that prevents the majority of heavier-than-air particles from entering. Self-cleaning and maintenance-free, the system is able to expel all types of mixed debris, including mud, snow, rain, leaves, sawdust, chaff, etc.

Undercarriage durability

A rigid, welded frame provides excellent durability. Efficient routing of hydraulic lines, transmission and rear differential protection and heavy-duty axles make the undercarriage perfect for wheeled excavator applications. An oscillating axle lock is available.

Strengthened boom & arm

Finite Element Analysis has been used to calculate the best load distribution throughout the boom structure. Combined with thicker material, this means that element fatigue is limited and both reliability and component life are increased.
To better protect the base of the arm, reinforced bars have been added and the arm centre and end boss have been strengthened.

Technical specifications

Engine

4-Cycle Water-Cooled, Turbocharged & Intercooled aspiration with wastegate turbocharger, High pressure common rail (1800 bar) with direct injection, Exhaust Gas Recirculation.

Model	Doosan D24
No. of cylinders	4
Piston displacement	2392 cm³
Rated power at 2400 rpm	
(DIN 6271)	42.5 kW (57.8 PS)
(SAE J1349)	42.5 kW (52.3 HP)
Max. torque	20.9 kg/m / 1.800 rpm
Bore × stroke	90 mm × 94 mm
Idle (low - high)	1050 [±10] - 2400 [±25] rpm
Starter	12 V / 2.7 kW
Batteries - Alternator	12 V / 100 Ah – 12 V / 90 A

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
- Increased swing torque reduces swing time
- The swing brake for parking is activated by spring and released hydraulically

Swing speed & torque

Maximum swing speed	9.4 rpm
Maximum swing torque	1299 kgf/m
Swing drive	Axial piston motor

Cab

The air-conditioning and heating systems are integrated for optimal climate control. An automatically-controlled fan supplies the 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.

Noise emission

A-weighted emission sound pressure level at the operator's position, LpAd (ISO 6396:2008)	74 dB(A)
A-weighted sound power level, LwAd (2000/14/EC)	Measured : 97 dB(A)

Note – Declared single-number noise emission values are the sum of measured values and the associated uncertainty, and they represent upper boundaries of the range of values which is likely to occur in measurements.

Weights

Operating weight with 1.6 m arm	5.79 t
Operating weight with 1.9 m arm	5.92 t

Component weights

Upper structure without front	2588 kg
Undercarriage incl. swing bearing	1956 kg
Front assembly	773 kg
Counterweight	243 kg
One-piece boom	248 kg
Arm 1600 mm	117 kg
Arm 1900 mm	140 kg
Dozer	196 kg

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 harmonise 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
- 3 operating modes, 3 power modes
- Computer-aided pump flow control

System pressure	240 kg/cm²
Main pump type	Split, axial piston
Main pump capacity	2 × 60 l/min
Pilot pump type	Gear
Pilot pump capacity	21.4 l/min
Steering pump type	Gear
Steering pump capacity	38.9 l/min

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 × stroke × rod diameter (mm)
Boom	1	110 × 712 × 60
Arm	1	85 × 873 × 55
Bucket	1	80 × 600 × 50
Blade	1	110 × 160 × 60
Stabilisers	2	75 × 100 × 75
Boom swing	1	95 × 558 × 50

Drive

The wheels are driven by an axial piston motor via a 2 speed (low, high) transmission. In addition to the two-speed powershift transmission, there is also an economy mode and a switch for the creep speed. Selection is made on the Travel Selector Switch. Two travel speed ranges offer a choice between increased torque or high speed.

Speed & traction

Travel speed (low - high)	10 - 30 km/h
Maximum traction	3.3 t
Minimum turning radius	5.0 m
Gradeability	70% (35°)
Oscillating angle	± 5%

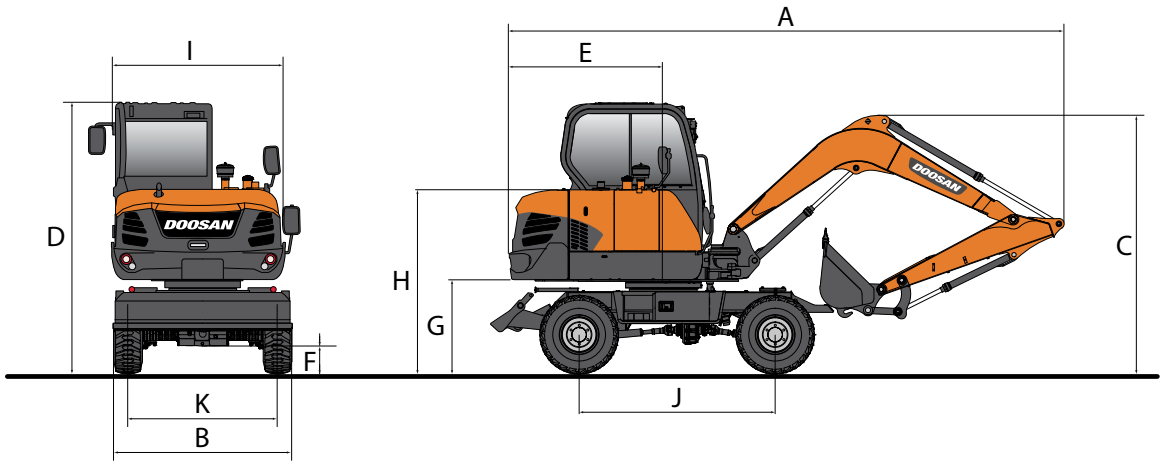
Brakes

Dual multi-disc circuit with sintered metal discs for extended service life. Braking system activated by a pump and accumulator circuits. Spring-applied, hydraulically released parking brake mounted on the transmission shaft.

Fluid capacities

Fuel tank	118 l
Hydraulic system	95 l
Cooling system	11.2 l
Engine oil	9.2 l
Front axle hub	2 × 0.4 l
Rear axle hub	2 × 0.4 l
Front axle case	5.1 l
Rear axle case	4.6 l
Transmission	1.5 l

Dimensions & Working range

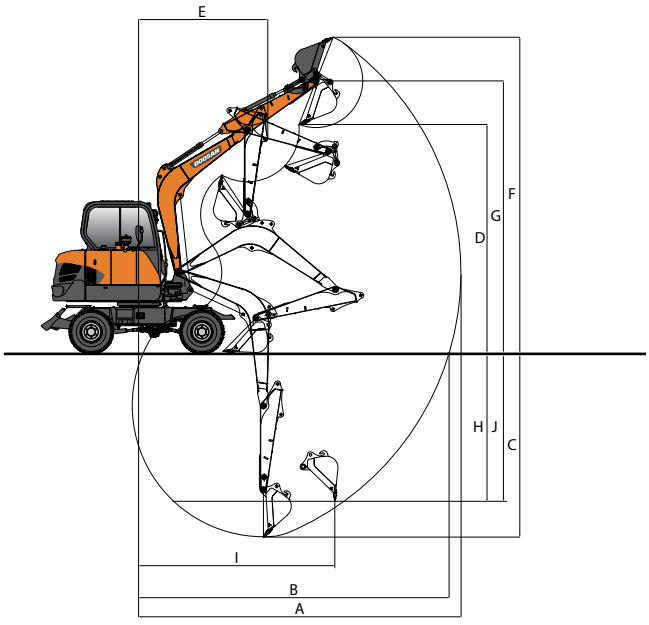


Dimensions

Boom length - mm	3000	
Arm length - mm	1600	1900
A Shipping length - mm	6120	6295
B Shipping width - mm	1920 (double tires: 2290)	1920
C Shipping height (boom) - mm	2739	3165
D Height over cab - mm	2855	2855
E Tail swing radius - mm	1650	1650
F Minimum ground clearance - mm	290	290
G Upper structure ground clearance - mm	980	980
H Engine cover height - mm	1935	1935
I Upper structure width - mm	1850	1850
J Wheel base - mm	2100	2100
K Tread width - mm	1600 (double tires: 2275)	2275

Working range

Boom length - mm	3000	
Arm length - mm	1600	1900
A Max. digging reach - mm	6108	6400
B Max. digging reach (ground) - mm	5888	6190
C Max. digging depth - mm	3495	3795
D Max. dumping height - mm	4324	4510
E Min. swing radius - mm	2448	2464
F Max. digging height - mm	5976	6170
G Max. bucket pin height - mm	5150	5339
H Max. vertical wall depth - mm	2805	3115
I Max. radius vertical - mm	3873	3928
J Max. digging depth (8´level) - mm	3084	3427



Digging forces

Bucket digging force (ISO)	4.2 t
Arm digging force (ISO)	2.8 t
Arm digging force, long arm (ISO)	2.5 t

Buckets

Bucket	Capacity (m³) SAE	Width (mm)		Weight	One-piece boom	
		With side cutters	W/O side cutters		Arm 1.6 m	Arm 1.9 m
Standard	0.175	724	654	139 kg	A	A
Option	0.19	784	714	149 kg	A	A
Option	0.07	362	300	94 kg	A	A

A: Suitable for materials with a density less than or equal to 2100 kg/m³
B: Suitable for materials with a density less than or equal to 1800 kg/m³
C: Suitable for materials with a density less than or equal to 1500 kg/m³
D: Suitable for materials with a density less than or equal to 1200 kg/m³
Based on ISO 10567 and SAE J296, arm length without quick-coupler. For reference only.

Lifting capacities

Dozer up - Front • W/O Bucket

Unit: 1000 kg	A	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		Max. reach		
	B													A
One-piece boom 3.0 m Arm 1.6 m Twin tires Counterweight 243 kg	4.0 m											1.20 *	1.20 *	3,59
	3.0 m							1.21 *	1.21 *			1.04 *	1.04 *	4.49
	2.0 m							1.36 *	1.3			1.00 *	0.92	4.98
	1.0 m					2.24 *	1.9	1.65 *	1.25	1.35	0.9	1.02 *	0.84	5.20
	0.0 m					2.89 *	1.8	1.84	1.2	1.33	0.88	1.11 *	0.83	5.19
	-1.0 m			2.22 *	2.22 *	2.86	1.76	1.81	1.17			1.30 *	0.88	4.94
	-2.0 m	2.96 *	2.96 *	4.00 *	3.46	2.86	1.76	1.81	1.17			1.57	1.02	4.43

Dozer up - Front • W/O Bucket

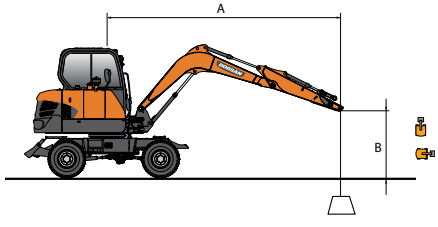
Unit: 1000 kg	A	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		Max. reach		
	B													A
One-piece boom 3.0 m Arm 1.9 m Twin tires Counterweight 243 kg	4.0 m	.						1.04 *	1.04 *			0.99 *	0.99 *	4.03
	3.0 m							1.04 *	1.04 *			0.87 *	0.87 *	4.83
	2.0 m							1.20 *	1.20 *	1.23 *	0.92	0.84 *	0.84	5.29
	1.0 m					1.98 *	1.93	1.52 *	1.26	1.35	0.9	0.86 *	0.78	5.49
	0.0 m					2.71 *	1.82	1.85	1.2	1.32	0.87	0.93 *	0.76	5.48
	-1.0 m			2.14 *	2.14 *	2.86	1.76	1.81	1.17	1.3	0.86	1.06 *	0.8	5.25
	-2.0 m	2.52 *	2.52 *	3.50 *	3.42	2.84	1.75	1.8	1.16			1.35 *	0.91	4.77

Dozer up - Rear • W/O Bucket

Unit: 1000 kg	A	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		Max. reach		
	B													A
One-piece boom 3.0 m Arm 1.6 m Twin tires Counterweight 243 kg	4.0 m											1.20 *	1.20 *	3.59
	3.0 m							1.21 *	1.21 *			1.04 *	1.04 *	4.49
	2.0 m							1.31	1.3			0.92	0.92	4.98
	1.0 m					1.92	1.9	1.26	1.25	0.9	0.9	0.85	0.84	5.20
	0.0 m					1.82	1.8	1.21	1.2	0.88	0.88	0.84	0.83	5.19
	-1.0 m			2.22 *	2.22 *	1.78	1.76	1.18	1.17			0.89	0.88	4.94
	-2.0 m	2.96 *	2.96 *	3.5	3.46	1.78	1.76	1.18	1.17			1.03	1.02	4.43

Dozer up - Rear • W/O Bucket

Unit: 1000 kg	A	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		Max. reach		
	B													A
One-piece boom 3.0 m Arm 1.9 m Twin tires Counterweight 243 kg	4.0 m							1.04 *	1.04 *			0.99 *	0.99 *	4.03
	3.0 m							1.04 *	1.04 *			0.87 *	0.87 *	4.83
	2.0 m							1.20 *	1.20 *	0.92	0.92	0.84	0.84	5.29
	1.0 m					1.95	1.93	1.26	1.26	0.9	0.9	0.78	0.78	5.49
	0.0 m					1.83	1.82	1.21	1.2	0.88	0.87	0.77	0.76	5.48
	-1.0 m			2.14 *	2.14 *	1.77	1.76	1.18	1.17	0.86	0.86	0.81	0.8	5.25
	-2.0 m	2.52 *	2.52 *	3.46	3.42	1.76	1.75	1.16	1.16			0.92	0.91	4.77



: Rating over front.
: Rating over side or 360°.

1. Lifting capacities are in compliance with ISO 10567:2007(E).
2. The load point is at the end of the arm.
3. * = The nominal loads are based on hydraulic capacity.
4. The nominal loads shown do not exceed 75% of tipping loads or 87% of hydraulic lifting capacity.
5. For lifting capacity with bucket, simply subtract the actual weight of the bucket from the values.
6. The configurations indicated do not necessarily reflect the standard equipment of the machine.

Standard and optional equipment

Engine

Doosan D24, Stage IIIB compliant, EGR, DOC, water-cooled diesel engine with Wastegate Turbocharger and air-to-air intercooler	●
Auto-idle function	●
No DPF	●

Hydraulic system

Boom and arm flow regeneration	●
Swing anti-rebound valves	●
Spare ports (valve)	●
One-touch power boost function	●
Breaker piping 2-ways	●
Cylinder cushioning & contamination seals	●

Cab & Interior

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 & right window	●
Intermittent upper and lower windshield wiper	●
Rear window defroster switch	●
Adjustable PPC wrist control levers for arm, boom, bucket and swing	●
Joysticks and pedal provide proportional control of auxiliary lines for attachments	●
Adjustable tiltable steering column	●
Jog shuttle switch	●
7" (18 cm) TFT LCD colour monitor panel	●
Attachment management system	●
Engine speed (RPM) control dial	●
Automatic travel speed	●
3 operating modes & 3 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	●
12 V spare power socket	●
Serial communication port for laptop PC interface	●
Remote radio ON/OFF switch	●
Loudspeakers and connections for radio	●
Radio with CD player	○

Safety

Roll Over Protective Structure (ROPS)	●
Boom and arm cylinder safety valves	●
Overload warning device	○
Rotating beacon	●
Rear-view camera	●
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, 1 front cab-mounted, 1 rear cab-mounted, 2 boom-mounted)	●

Other

Boom: 3000 mm – arm: 1600 mm – counterweight: 243 kg	●
Auto shut-off fuel filler pump	●
Air cleaner and pre-filtered Cyclone Turbo dust separator	●
Fuel pre-filter with water separator sensor	●
Screen for radiator/oil cooler	●
Self-diagnostic function	●
Alternator (12 V, 90 A) - Battery (12 V, 100 Ah)	●
2-speed travel system	●
Remote greasing for swing circle and work group pivot points	●
Guards for work lights	●
Arms: 1900 mm	○
Doosan buckets: full range of GP, HD & Rock buckets	○
Doosan breakers and Doosan quick-couplers	○
Hydraulic piping for crusher, quick-coupler, clamshell, tilting and rotating buckets	○
Additional filter for breaker piping	○
Automatic lubrication system	○
Road homologation (depending on countries)	○

Undercarriage

Rear dozer blade and front cradle	●
Single tires 12-16.5-12PR	●
Double tires 8.25-15, 14 PR	○
Front axle oscillation lock modes (On/Off/Auto)	●
Lockable tool box	●
Rear & front chain tightening eyes	●

Standard: ●
Optional: ○

Tool box

Double tires

Doosan buckets

Doosan breakers and quick-couplers

Some of these options may be standard in some markets. Some of these options may not be available for certain markets. Please check with your local DOOSAN dealer for more information about availability or to adapt your machine to your application needs.

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WHEN IT COMES TO DOOSAN...

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Specifications and design are subject to change without notice. Pictures of Doosan products may show other than standard equipment.

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