

# DOOSAN

Wheeled Excavators |  
DX165W-5



Maximum power: 137 hp  
Operating weight: 16.6 t  
Max. bucket capacity: 0.76 m<sup>3</sup>



# Doosan Group – Building your tomorrow today

## Be part of the great Doosan family

The Doosan Group - founded in 1896 and headquartered in Seoul, South Korea - is one of the fastest-growing companies in the world:

- With more than 37,500 employees in 38 countries, we are a major player in a variety of industries worldwide.
- A global leader in the Infrastructure Support Business (ISB), with 56 subsidiaries and 3,700 distributors worldwide.
- Dramatic growth over the past two decades, with an annual Doosan Group revenue rising from €2.4 billion in 1998 to €12.8 billion in 2016.

## Doosan Group – a top player worldwide



### Doosan Infracore

- Among the world's Top 5 manufacturers of construction equipment



### Doosan Bobcat

- A leading company in the design, manufacture, marketing, distribution and service of small equipment and attachments for construction, agriculture, and landscaping
- Leading position in the global compact equipment market
- N° 1 in North America for SSL, CTL and MEX



### Doosan Heavy Industries & Construction

- World N° 1 in desalination plant construction
- World N° 1 in heat recovery steam generator market
- World N° 1 in mould & tool steel
- World N° 3 in crankshafts



### Doosan Engineering & Construction

- A pioneering leader in construction of residential and public buildings, civil works and industrial facilities.
- World N° 1 chemical process equipment products



## Doosan Infracore Construction Equipment

### Creating construction equipment for over 40 years

For over 40 years, we've been building a global production and business network to become one of the world's foremost construction equipment manufacturers.

### A solid partner, close to you

A truly global player in every respect, we have large-scale factories, sales subsidiaries and dealers all over the world.



Doosan facilities in Europe

▣ **From machine manufacturer... to full solution provider**

To ensure the highest trade-in and residual values, our parts and service support professionals maintain the performance, productivity and reliability that you expect of our products throughout their lifetime.

▣ **Ask your dealer for a full range of services designed especially for you!**

As your local specialist, your dealer ensures that you receive the maximum benefit from our integrated package. Plan ahead to ensure the success of your equipment!



Doosan approved attachments



Genuine parts



Extension of warranty



Financial solutions



Maintenance contract



Telematics



Monitoring systems



Dealer Locator

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Advanced Services

- Articulated Dump Trucks
- Mini excavator
- Crawler Excavator
- Wheeled Excavator
- Wheel Loaders

▣ **Experience the Doosan product range!**



Articulated Dump Trucks



Wheel Loaders



Wheeled Excavators



Mini Excavators



Crawler Excavators

# The best runner in its class for jobs in tight spaces

## ► High productivity & low cost of ownership

When it comes to moving with high precision big pipes or any materials within tight spaces, particularly in urban areas or on narrow roads, you deserve the best!

At Doosan we have designed this machine considering that stability, safety & lifting performances were not to be compromised to compactness or else factors. You needed it all! So we made it tough, compact, agile, precise & comfortable to drive. And the result is this DX165W5 which ensure it performs on any job site alike our legendary other conventional models of wheel excavators.

⊙ **Reliability:** Reinforced castings and forged steel pivot points and reinforced heavy-duty arm and boom to withstand high-impact materials. Large, robust boom and arm cylinders for smooth, powerful operation. Advanced pin & bushing technology.

⊙ **Productivity:** Highest in this class in the market for digging power & lifting capacities.

⊙ **Safety:** Rear camera as standard and side camera as option, large side mirrors, powerful lighting, anti-slip steps. Guard rails on upper structure.

⊙ **Various applications:** Highest hydraulic capacity in its class in the market with  $2 \times 172$  l/m. For any attachments & work you'll get this extra power you need.

## **DOOSAN** CONNECT

⊙ **Telematics:** Monitor your fleet online. As standard, Doosan Connect system with dual mode (satellite, GSM). Check productivity, fuel consumption, system warnings, maintenance status, etc.

⊙ **Front axle oscillation:** For more comfort. Can be automatically or manually activated for better lifting or digging.



⊙ **Frame durability:** Chassis frame and stabilizer frames have 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:** Get the extremely precise, powerful & smooth digger control required for trench & lifting work.

4 work & 4 power modes, proportional control, user-friendly 7" TFT LCD colour monitor. 2 speeds (high, low + creep) with cruise control and 3 front axle oscillation lock modes

☉ **Power:** Exceptionally powerful - with high torque at low revs - the Stage IV compliant Perkins engines are free from Diesel Particulate Filter (DPF) and associated regeneration system for more fuel efficiency

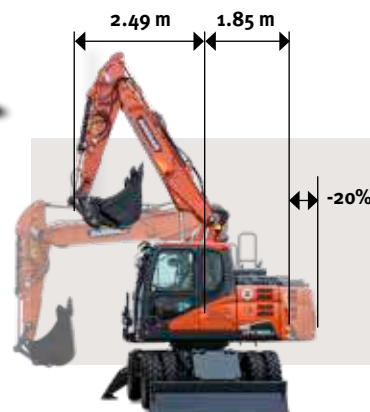
☉ **Efficient fuel management:** The Perkins engine allows up to 5% fuel saving. A new SPC (Smart Power Control) system, combined with settable engine shut-off, provides an additional reduction of up to 5%.

☉ **Electric fan clutch:** For optimum cooling, fan speed is controlled electronically by a fan clutch, resulting in lower fan noise and better fuel efficiency.

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

☉ **Advanced filtration:** Highest efficiency filters & cleaners remove water, dust & particles to protect your investment optimally.

☉ **Work lights:** As standard: 2 front frame, 4 front & 2 rear cab-mounted, 2 boom mounted and 1 rear side.



**Reduced tail swing radius:** To facilitate use in the city and in tight locations, the tail swing radius is 20% shorter. The smallest swing diameter is only 4.5 m.

# Top performance and fuel efficiency



## ▣ The power to raise productivity

The DX165W-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 DX165W-5 is equipped with a Perkins engine. Famous for excellent fuel efficiency, reliability and long service life, it combines exceptional power output and high torque at low revs. Engine is fitted with common rail fuel injection combined with an wastegate turbocharger which increases the density of the air enabling the engine to produce more power.

Selective Catalytic Reduction (SCR) technology - combined with a Diesel Oxidation Catalyst (DOC) - ensures compliance with Stage IV regulations. As there is no need for a particulate filter, there is no need for regeneration.

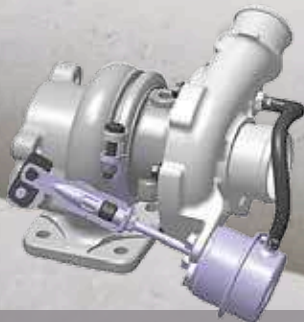


If the engine is the heart of the excavator, the e-EPOS is its brain - providing a perfectly synchronised communication link between the engine's ECU (Electronic Control Unit) and the hydraulic system. A CAN (Controller Area Network) system enables a constant flow of information between engine and hydraulic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

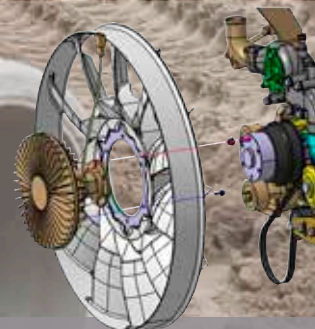
## EFFICIENT FUEL MANAGEMENT

- Choice between 4 power modes and 4 working modes guarantees optimum performance in all conditions
- SPC (Smart Power Control): reduces engine RPM during low load demand & ensures pump torque control, thus ensuring fuel efficiency and low emissions
- 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
- For optimum cooling, fan speed is controlled by a electrical viscous fan clutch resulting in a lower fan noise & better fuel efficiency

When doing lifting work, be sure to observe local regulations. Never use a lifting device not permanently marked with a Rated Lifting Load (RLL)



**Wastegate turbocharger:** Diverts exhaust gases away from the turbine wheel to better regulate max boost pressure & protect engine. Also reduces lag time before turbo begins to spool/create boost maximising torque, plus reduces wear in high rpm & low load conditions. Turbocharger increases the density of the air, enabling the engine to produce more power with few effects from altitude.



**Electrical viscous fan clutch:** For optimum cooling, fan speed is controlled electronically by a fan clutch, resulting in lower fan noise and better fuel efficiency.

# Operating in comfort

## ▣ The ideal workspace – designed around you

The DX165W-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 IV 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.

### Two-way proportional pedal & joystick

For maximum comfort when operating attachments - operator can easily set his preference in the control panel to operate with the rollers on joystick or with the pedal.

### 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). A storage box has been placed under the seat for extra convenience.

### Air conditioning with climate control

The operator can choose from 5 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.

### MP3/USB radio

MP3 player (MP3/USB radio with CD player optional).

### Storage space

The new cab contains 7 storage compartments including one hot/cool box (linked to the HVAC system).

### 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.





- 1. Large sun roof
- 2. Sun visor
- 3. Storage compartment for sunglasses
- 4. Window grip
- 5. Hot/cool box
- 6. Heating switch
- 7. Upper front window includes a sun shade and is strut-assisted for easy reliable adjustment
- 8. Photo sensor detects radiant energy from the sun and adjusts temperature automatically
- 9. Joysticks and switches are integrated in adjustable control consoles
- 10. Blinker & wiper control
- 11. Improved visibility on the bottom right
- 12. Separate seat height adjustment lever and cushion tilting function
- 13. Accelerator pedal
- 14. Brake pedal
- 15. Pedal for auxiliary control 1 & 2 ways
- 16. Flat spacious easy-to-clean floor
- 17. Engine emergency stop switch

# 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
- Doosan's unique jog shuttle switch gives you easy, precise control over all machine functions
- 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. All functions are totally controllable, directly via the screen or using the exclusive jog shuttle switch.

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. Optional anti-theft password-controlled starting
10. Oil filter information
11. Attachment management: stores up to 10 different attachment presets, enabling the operator to set hydraulic flow & pressure according to his needs

### Dynamic power management

- Automatic travel speed function
- Activating the power boost control system increases digging force by 10%
- 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

### 4 Work modes & 4 Power modes

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

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



**Simple control:** Doosan's exclusive jog shuttle switch for easy and precise control over all machine functions.



1. Power Boost switch & One-touch deceleration switch
2. Thumb wheel switch allows proportional control of attachments
3. FNR selector switch
4. "Short stroke" joysticks enable easy, precise control of all operations
5. Axle RAM lock
6. Exclusive jog shuttle switch
7. Working lights switch
8. Smart Power Control
9. Travel speed selector switch
10. Climate control
11. Remote control of radio
12. Parking brake
13. Power socket 12V

**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: anti-slip plates, automatic overheating alarm warning, low oil pressure sensor, engine emergency cut-off switch, auxiliary mode switch (allows a safe level of hydraulics operation in case of EPOS failure), overload warning device. Optional travel/swing alarm and side view camera are also available.



Rear and side view cameras



Work lights

# Reliability, the habit of a lifetime

## ▣ Designed for long-term all-round heavy-duty performance

In your profession, you need equipment you can depend on. At Doosan, we use highly specialised design and analysis tools to make sure our machines are as robust and durable as can be. Our materials and structures undergo stringent testing for strength and resilience under the most extreme conditions.

And we continually manufacture the most durable machines to ensure lower cost of ownership.



### Undercarriage durability

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

### New drive line concept

The new travel motor and powershift transmission control in the drive line provide comfortable travel due to increased smoothness, improved hydraulic retarding and improved gear shifting.

### Advanced disc brake system

The new improved system allows a more efficient braking of the machine. This eliminates the rocking effect associated with working on wheels. The ZF axles are designed for low maintenance, and the oil change intervals have been increased to 2000 hours, further reducing owning and operating costs.

### Heavy-duty axles

The front axle offers wide oscillating and steering angles. The transmission is mounted directly on the rear axle for protection and optimum ground clearance.

### Advanced filtration

- Fuel filters & water separator: a filter-type high-performance water separator effectively captures moisture in the fuel, reducing impurities and helping minimise any fuel-related issues. Pre-filters and dual main filters as standard minimise fuel system failures
- Air cleaner: The large capacity forced air cleaner removes over 99% of airborne particles, reducing the risk of engine contamination and extending the cleaning and cartridge change intervals

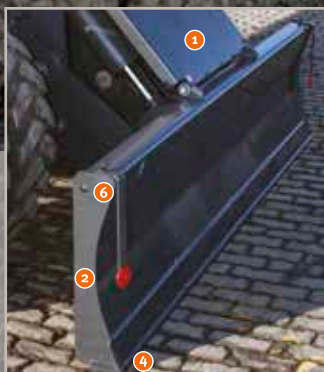
### Pin & bushing advanced technology

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.

### 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.



**Exclusive parallel dozer and independent stabiliser design:**

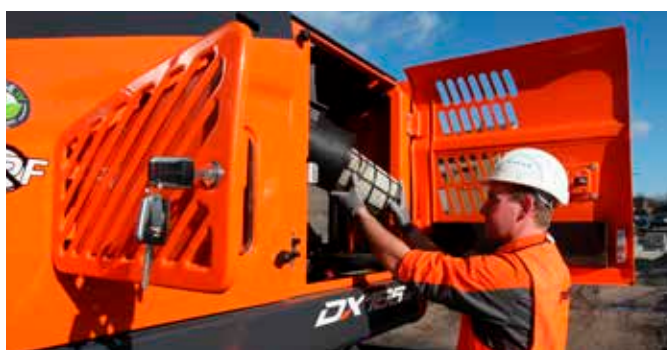
1. Large reinforced covers protect the dozer and stabiliser cylinders
2. The dozer blade design facilitates pulling and mixing of materials
3. The Stabilisers are kept well within the machine envelope and the position of the pins is kept high to avoid bumping while moving over the ground
4. Parts in contact with the ground have been carefully designed to prevent damage to the surface
5. Wide pads to reduce ground pressure
6. Lifting eyes on dozer for secure transport, additional 4 eyes are on the undercarriage

# Simple maintenance with maximum uptime

## ▣ Excellent service accessibility

Short maintenance operations at long intervals mean you can depend on your equipment being available on site when it's needed. Our machines are designed for simple routine maintenance, while skilled Doosan technicians are available to provide extra support, should you need it. Choose the package you need from a broad range of service agreements to get the most out of your machine. Uptime, productivity and residual value are all maximised, making these excavators an economical and rewarding choice.

Building further on the success of the Stage IIIB engines, the new Stage IV Perkins 1204F engine has no need for a DPF filter to meet the Stage IV emissions requirements - which means no maintenance required, so more uptime!



### Maintenance access made simple

- Large guard rails are installed along with anti-slip steps and plates, for safer, easier access to the whole upper structure
- The cab's air-conditioning filter is lockable and placed on the side of the cab for easy access
- 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
- Shut-off valves have been fitted on the pre-filter piping line and fuel tank drain piping to make servicing easier and prevent pollution from leakage
- Engine parts can be easily reached via the top and side panels
- For extra accessibility and servicing convenience, all filters (engine oil filter, fuel pre-filter, fuel filter and pilot filter) are located in the pump compartment

### 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.

### Global Doosan network

With a worldwide network of Doosan dealers & Parts Distribution centres, your Doosan excavator can be serviced & maintained wherever you are.

### SCR Tank

Connected to the ECU, sensors in tank detect low level of AdBlue® & any system malfunction

### Centralised greasing points

To make maintenance easier, the greasing points have been centralised.

### Full solution provider

- The Doosan Telematic system is available as standard - offering you all of the features for reading out vehicle operating & production parameters remotely, and providing you with complete peace of mind
- Protection+ : extended warranty covering parts, travel and service (check with your local dealer)
- Maintenance contract: your dealer will support you with routine service at regular intervals
- Genuine parts: manufactured and tested to ensure they always meet the same high quality standards as the original components



Battery cut-off switch



Guard rails



SCR Tank



Hour meter  
(from ground level)

# Technical specifications

## Engine

Designed to deliver superior performance and fuel efficiency, the Perkins 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).

DX165W-5	
Model	Perkins 1204F
No. of cylinders	4
Rated power at 2200 rpm (SAE J1995)	102.1 kW (137.0 hp)
Rated power at 2200 rpm (SAE J1349)	96.5 kW (129.3 hp)
Max. torque at 1400 rpm	57 kgf·m
Idle (low - high)	950 [ $\pm 10$ ] - 2350 [ $\pm 25$ ] rpm
Piston displacement	4400 cm <sup>3</sup>
Bore × stroke	105 mm × 127 mm
Starter	24 V × 4.5 kW
Batteries - Alternator	2 × 12 V, 100 Ah - 24 V, 85 Ah
Air filter	Double element air cleaner

## Undercarriage

Extremely robust construction throughout - made of high-quality, durable materials, with all welded structures designed to limit stresses. Heat-treated connecting pins. 10.00-20-14PR (OTR) double tyres with tyre spacer. Heavy-duty front axle with automatic or operator-controlled (on/off/auto) front axle oscillation lock.

### Front axle oscillation

DX165W-5	
	$\pm 7.94^\circ$ with automatic ram lock

## 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.

## Component weights

Item	Unit	Weight	Remarks
Upper structure without front	kg	8203	With counterweight
Undercarriage	kg	5510	Including stabilisers, front cradle and rear dozer blade
Front assembly	kg	2860	Including two-piece boom and 2.5 m arm
Counterweight	kg	3315	
Boom 4.6 m	kg	769	Including bushing
Boom 4.1 m	kg	740	Including bushing
Arm 2.1 m	kg	371	Including bushing
Arm 2.5 m	kg	414	Including bushing
Two-piece boom, lower	kg	380	
Two-piece boom, upper	kg	592	
Dozer	kg	716	Excluding dozer cylinders
Dozer cylinders (each)	kg	42	
Stabilisers	kg	926	Excluding stabilizer cylinders
Stabiliser cylinder (each)	kg	74	

## 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
- 4 operating modes, 4 power modes
- Flow and pressure control of auxiliary hydraulic circuits from control panel
- Computer-aided pump flow control

### Maximum system pressure

DX165W-5	
Work	350 kgf/cm <sup>2</sup>
Swing	275 kgf/cm <sup>2</sup>
Travel	370 kgf/cm <sup>2</sup>
Power boost	370 kgf/cm <sup>2</sup>

## Pumps

Pump	Type	Max. flow @ 2000 rpm	Relief valve pressure
Main (2)	Parallel, bent axis, axial piston	2 × 172 l/min	-
Pilot	Gear	19.4 l/min	4 MPa
Steering	Gear	36.6 l/min	18.5 MPa
Brake	Gear	13.2 l/min	15.7 MPa

## 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)
Boom, lower	1	140 × 85 × 720
Boom, upper	2	110 × 75 × 1035
Arm	1	115 × 80 × 1068
Bucket	1	100 × 70 × 900
Dozer blade	2	100 × 60 × 204
Stabilizer	2	110 × 70 × 438



## ► 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

	DX165W-5
Maximum swing speed	13.5 rpm
Maximum swing torque	3565 kgf·m

## ► Drive

The wheels are driven by an axial piston motor via a two-speed powershift transmission. In addition to the two-speed powershift transmission, there is also an economy mode and a switch for the creep speed. A button makes it possible to pass from high to low in work mode.

Two travel speed ranges offer a choice between increased torque or high speed.

## ► Speed & traction

	DX165W-5
Travel speed (creep - low - high)	3.5 / 10 / 37 km/h
Maximum traction	10 t
Minimum turning radius	6.4 m
Gradeability	62% (32°)

## ► Fluid capacities

	DX165W-5
Fuel tank	236 l
Cooling system (radiator)	25.8 l
Hydraulic oil system	96 l
Engine oil	7.7 l
Swing drive	3 l
Front axle hub	2 × 2.5 l
Rear axle hub	2 × 2.4 l
Front Axle Case	9 l
Rear Axle Case	11.2 l
Transmission	2.5 l
Urea tank	19 l

## ► Cab

ROPS cab, large and roomy interior. One-way travel pedal with FNR switch on the right joystick. Audio system with remote control, independently adjustable joystick consoles. Excellent all-round visibility, transparent roof hatch, 2-piece sliding door window, narrow and easily adjustable steering column. The removable lower front glass can be stored behind the seat. Interior lighting. The pressurised and filtered cab air is supplied by numerous vents. Climate-control provides fast defrosting and high cooling and heating performance. Viscous/spring mounted suspension cushions reduce vibrations. Heated air suspension seat with adjustable seat suspension, height, tilt, recline and forward-backward settings. Adjustable, easy to read 7" LCD colour monitor provides real-time information on machine functions and diagnostic information and is switchable to rear view camera (std) or side view camera (optional).

## ► Noise emission

	DX165W-5
A-weighted emission sound pressure level at the operator's position, LpAd (ISO 6396:2008)	Declared: 71 dB(A)
A-weighted sound power level, LwAd (2000/14/EC)	Guaranteed: 99 dB(A) 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.

## ► Buckets

Bucket Type	Capacity (m³) SAE	Width (mm)		Weight (kg)	Front stabilisers & rear dozer up	
		With side cutters	W/O side cutters		Two-piece boom 4.987 m	
					Arm 2.1 m	Arm 2.5 m
GP	0.24	534	458	275	A	A
	0.39	820	736	341	A	A
	0.45	911	821	381	A	A
	0.51	991	907	393	A	A
	0.59	1081	997	413	A	A
	0.64	1167	1083	435	A	B
HD	0.76	1339	1255	484	B	C
	0.42	827	762	462	A	A
	0.49	913	848	497	A	A
	0.54	981	916	517	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

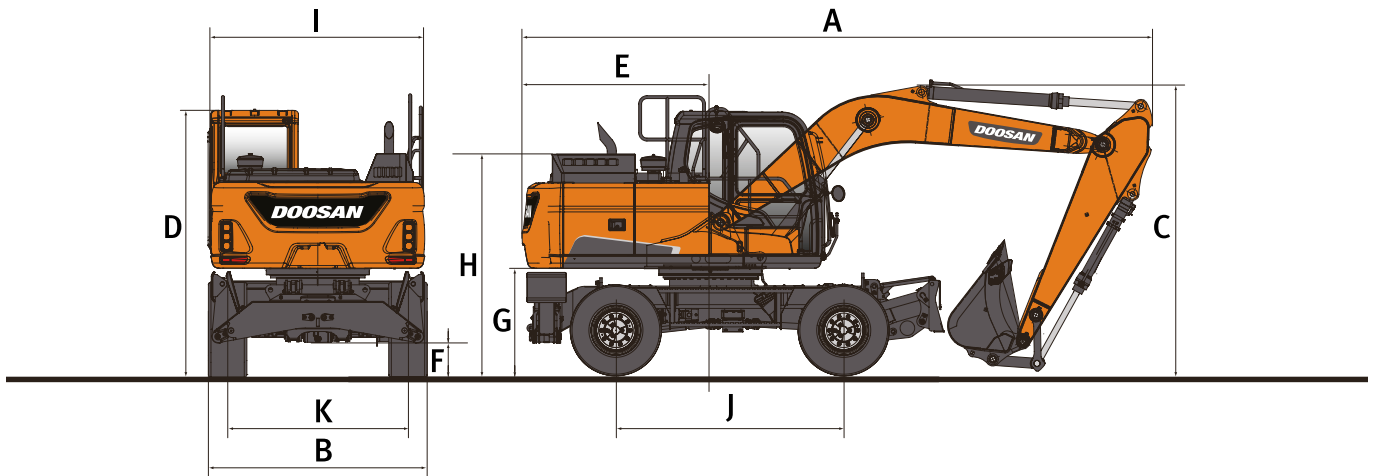
D: Suitable for materials with a density less than or equal to 1200 kg/m³

Based on ISO 10567 and SAE J296, arm length without quick-coupler. For reference only.

## ► Weight

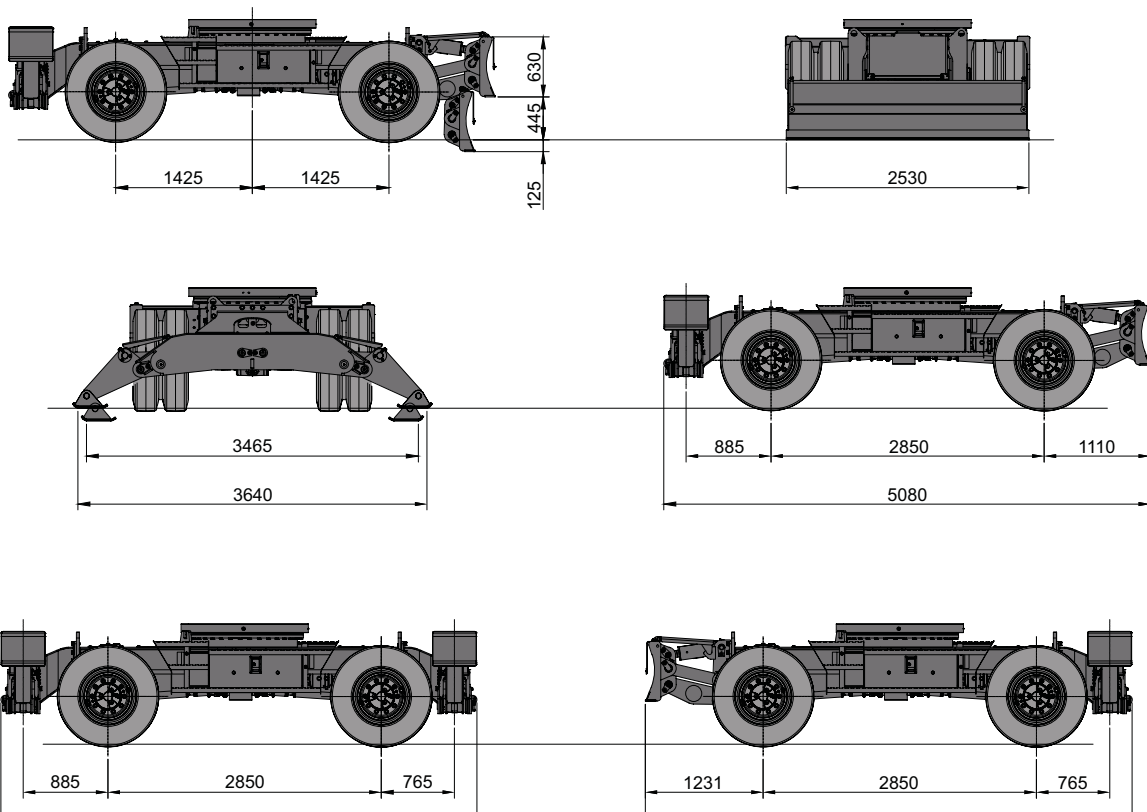
Boom (mm)	Arm (mm)	Bucket (m³)	C/W (tonne)	Chassis Front	Chassis Rear	Total weight (kg)
One-piece boom (4600)	2100	0.64	3.3	Cradle	Dozer	16123
	2500	0.64	3.3	Dozer	Stabilizer	17287
Two-piece boom (4987: 2000 + 3350)	2100	0.64	3.3	Cradle	Dozer	16271
		0.64	3.3	Dozer	Stabilizer	17357
		0.64	3.3	Stabilizer	Stabilizer	17656
	2500	0.64	3.3	Cradle	Dozer	16531
		0.64	3.3	Dozer	Stabilizer	17617
		0.64	3.3	Stabilizer	Stabilizer	17916

# Dimensions

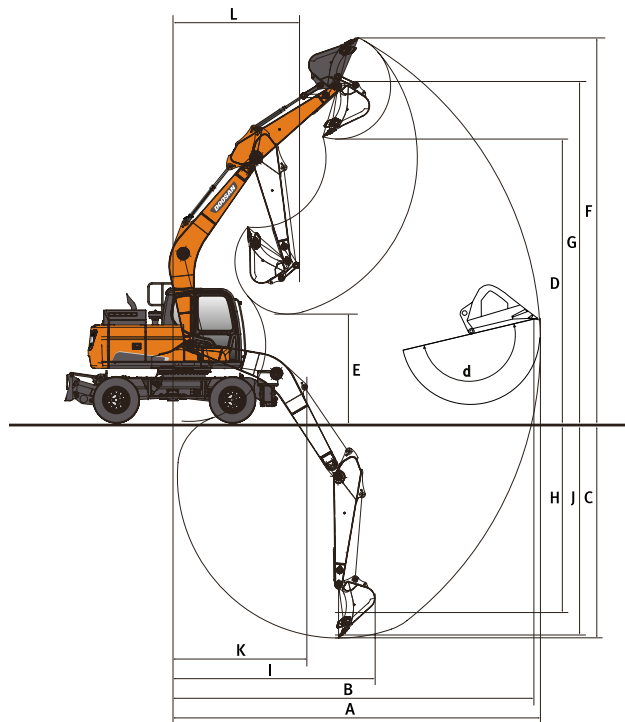


## ▮ Dimensions

	One-piece boom		Two-piece boom	
	4600		4987 (2000 LB + 3350 UB)	
Boom length - mm			2100	2500
Arm length - mm			0.64	0.64
Bucket capacity - m <sup>3</sup>			0.64	0.64
A Shipping length - mm	7509	7554	7944	7934
B Shipping width - mm	2490	2490	2490	2490
C Shipping height (boom) - mm	2874	3220	2960	3108
D Height over cab - mm	3102	3102	3102	3102
E Tail swing radius - mm	1850	1850	1850	1850
F Ground clearance - mm	347	347	347	347
G Counterweight clearance - mm	1215	1215	1215	1215
H Engine cover height - mm	2262	2262	2262	2262
I Upper housing width - mm	2490	2490	2490	2490
J Wheel base - mm	2800	2800	2800	2800
K Tread width - mm	1944	1944	1944	1944



# Working range



## Working range

	One-piece boom		Two-piece boom	
	4600		4987 (2000 LB + 3350 UB)	
Boom length - mm				
Arm length - mm	2100	2500	2100	2500
Bucket capacity - m <sup>3</sup>	0.64	0.64	0.64	0.64
A Max. digging reach - mm	7765	8235	8210	8670
B Max. digging reach (ground) - mm	7560	8040	8020	8490
C Max. digging depth - mm	4620	5020	5025	5455
D Max. loading height - mm	6060	6510	6715	7175
E Min. loading height - mm	2835	2465	3305	2935
F Max. digging height - mm	8340	8850	9060	9565
G Max. bucket pin height - mm	7275	7730	7930	8395
H Max. vertical wall depth - mm	3480	4265	3840	4410
I Max. radius vertical - mm	5695	5555	5825	5680
J Max. digging depth (8° level) - mm	4345	4805	4905	5345
K Min. radius 8° line - mm	2240	2315	865	865
L Min. swing radius - mm	2500	2665	2490	2645
d Bucket angle - °	174	174	174	174

## Doosan Buckets

4 More. More choice - More durable - More strength - More performance!

### General Construction Bucket



The General purpose bucket is designed for digging and re-handling soft to medium materials (e.g. materials with low wear characteristics such as top-soil, loam, coal).

### Heavy Construction Bucket



The Heavy duty bucket is designed for mass excavations in dense materials such as hard packed clay, shot limestone, limited rock content and gravel.

### Severe Mining Bucket



The Severe duty bucket is designed for durability in digging compact materials like loose or blasted rock, hard packed clay and stone.

### X-treme Mining Bucket



The X-treme duty bucket is designed as a long-life version of the Severe duty bucket for digging in the most abrasive materials.

# Lifting capacities

## DX165W-5

### W/O Bucket

Unit: 1000 kg	A		Chassis Frame Attachment		1.5 m		3.0 m		4.5 m		6.0 m		Max. reach			
	B		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	A		
Two-piece boom 4987 m Arm 2.1 m Counterweight 3.3 t	7.5 m	F-Cradle + R-Dozer Up											3.88 *	3.88 *	3.89	
		F-Cradle + R-Dozer Down											3.88 *	3.88 *		
		F-Dozer + R-Stabiliser Down											3.88 *	3.88 *		
		F-Stabiliser + R-Stabiliser Down											3.88 *	3.88 *		
	6.0 m	F-Cradle + R-Dozer Up							4.69 *	4.03				3.28 *	2.88	5.52
		F-Cradle + R-Dozer Down							4.69 *	4.48				3.28 *	3.21	
		F-Dozer + R-Stabiliser Down							4.69 *	4.69 *				3.28 *	3.28 *	
		F-Stabiliser + R-Stabiliser Down							4.69 *	4.69 *				3.28 *	3.28 *	
	4.5 m	F-Cradle + R-Dozer Up			6.61 *	6.61 *	5.21 *	3.9	4.65 *	2.51	3.14 *	2.24			6.42	
		F-Cradle + R-Dozer Down			6.61 *	6.61 *	5.21 *	4.34	4.65 *	2.79	3.14 *	2.49				
		F-Dozer + R-Stabiliser Down			6.61 *	6.61 *	5.21 *	5.21 *	4.65 *	4.4	3.14 *	3.14 *				
		F-Stabiliser + R-Stabiliser Down			6.61 *	6.61 *	5.21 *	5.21 *	4.65 *	4.65 *	3.14 *	3.14 *				
	3.0 m	F-Cradle + R-Dozer Up					6.24 *	3.65	4.9	2.42	3.21 *	1.96			6.88	
		F-Cradle + R-Dozer Down					6.24 *	4.09	4.99 *	2.7	3.21 *	2.2				
		F-Dozer + R-Stabiliser Down					6.24 *	6.24 *	4.99 *	4.31	3.21 *	3.21 *				
		F-Stabiliser + R-Stabiliser Down					6.24 *	6.24 *	4.99 *	4.99 *	3.21 *	3.21 *				
	1.5 m	F-Cradle + R-Dozer Up					7.18 *	3.42	4.78	2.32	3.46 *	1.87			6.99	
		F-Cradle + R-Dozer Down					7.18 *	3.85	5.39 *	2.6	3.46 *	2.1				
		F-Dozer + R-Stabiliser Down					7.18 *	6.41	5.39 *	4.2	3.46 *	3.37				
		F-Stabiliser + R-Stabiliser Down					7.18 *	7.18 *	5.39 *	5.16	3.46 *	3.46 *				
	0.0 m	F-Cradle + R-Dozer Up							7.34	3.3	4.71	2.26	3.96	1.93	6.76	
		F-Cradle + R-Dozer Down							7.52 *	3.73	5.54 *	2.53	3.97 *	2.16		
		F-Dozer + R-Stabiliser Down							7.52 *	6.27	5.54 *	4.13	3.97 *	3.5		
		F-Stabiliser + R-Stabiliser Down							7.52 *	7.52 *	5.54 *	5.08	3.97 *	3.97 *		
-1.5 m	F-Cradle + R-Dozer Up			10.02 *	5.94	7.12 *	3.29	4.71	2.26	4.53	2.18			6.17		
	F-Cradle + R-Dozer Down			10.02 *	6.83	7.12 *	3.72	5.13 *	2.54	4.88 *	2.45					
	F-Dozer + R-Stabiliser Down			10.02 *	10.02 *	7.12 *	6.26	5.13 *	4.13	4.88 *	3.97					
	F-Stabiliser + R-Stabiliser Down			10.02 *	10.02 *	7.12 *	7.12 *	5.13 *	5.09	4.88 *	4.88 *					

Unit: 1000 kg	A		Chassis Frame Attachment		1.5 m		3.0 m		4.5 m		6.0 m		Max. reach			
	B		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	A		
One-piece boom 4600 m Arm 2.1 m Counterweight 3.3 t	6.0 m	F-Cradle + R-Dozer Up							4.36 *	3.99			3.12 *	3.12 *	4.95	
		F-Cradle + R-Dozer Down							4.36 *	4.36 *			3.12 *	3.12 *		
		F-Dozer + R-Stabiliser Down								4.36 *	4.36 *			3.12 *		3.12 *
	4.5 m	F-Cradle + R-Dozer Up								5.75 *	3.92			2.97 *	2.56	5.93
		F-Cradle + R-Dozer Down								5.75 *	4.36			2.97 *	2.85	
		F-Dozer + R-Stabiliser Down								5.75 *	5.75 *			2.97 *	2.97 *	
	3.0 m	F-Cradle + R-Dozer Up				9.86 *	6.72	6.65 *	3.73	4.91	2.47	3.06 *	2.22		6.43	
		F-Cradle + R-Dozer Down				9.86 *	7.64	6.65 *	4.17	5.16 *	2.74	3.06 *	2.47			
		F-Dozer + R-Stabiliser Down				9.86 *	9.86 *	6.65 *	6.65 *	5.16 *	4.33	3.06 *	3.06 *			
	1.5 m	F-Cradle + R-Dozer Up								7.50 *	3.54	4.82	2.39	3.35 *	2.12	6.54
		F-Cradle + R-Dozer Down								7.50 *	3.97	5.66 *	2.66	3.35 *	2.36	
		F-Dozer + R-Stabiliser Down								7.50 *	6.51	5.66 *	4.24	3.35 *	3.35 *	
	0.0 m	F-Cradle + R-Dozer Up				8.68 *	6.09	7.42	3.43	4.76	2.34	3.97 *	2.19		6.30	
		F-Cradle + R-Dozer Down				8.68 *	6.97	7.69 *	3.85	5.59 *	2.61	3.97 *	2.45			
		F-Dozer + R-Stabiliser Down				8.68 *	8.68 *	7.69 *	6.37	5.59 *	4.19	3.97 *	3.91			
	-1.5 m	F-Cradle + R-Dozer Up			7.59 *	7.59 *	9.84 *	6.13	6.95 *	3.41			5.14 *	2.53	5.66	
		F-Cradle + R-Dozer Down			7.59 *	7.59 *	9.84 *	7.01	6.95 *	3.84			5.14 *	2.83		
		F-Dozer + R-Stabiliser Down			7.59 *	7.59 *	9.84 *	9.84 *	6.95 *	6.36			5.14 *	4.55		
	-3.0 m	F-Cradle + R-Dozer Up					6.87 *	6.28					4.61 *	3.57	4.45	
		F-Cradle + R-Dozer Down					6.87 *	6.87 *					4.61 *	4.01		
		F-Dozer + R-Stabiliser Down					6.87 *	6.87 *					4.61 *	4.61 *		

## Digging forces (ISO)

Boom length - mm	One-piece boom				Two-piece boom			
	4600				4987 (2000 LB + 3350 UB)			
	2100		2500		2100		2500	
Arm length - mm	2100		2500		2100		2500	
Bucket capacity - m³	0.86		0.86		0.86		0.86	

BUCKET (Normal/Press. Up) - ton	10.00 / 10.57	10.00 / 10.57	11.08 / 11.71	11.08 / 11.71
ARM (Normal/Press. Up) - ton	7.59 / 8.02	6.53 / 6.9	7.59 / 8.02	6.53 / 6.9

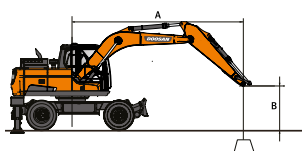
# Lifting capacities

## DX165W-5

### W/O Bucket

Unit: 1000 kg	A B	Chassis Frame Attachment	1.5 m		3.0 m		4.5 m		6.0 m		Max. reach		A
			☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	
Two-piece boom 4987 m Arm 2.5 m Counterweight 3.3 t	7.5 m	F-Cradle + R-Dozer Up					3.36 *	3.36 *			2.85 *	2.85 *	4.69
		F-Cradle + R-Dozer Down					3.36 *	3.36 *			2.85 *	2.85 *	
		F-Dozer + R-Stabiliser Down					3.36 *	3.36 *			2.85 *	2.85 *	
		F-Stabiliser + R-Stabiliser Down					3.36 *	3.36 *			2.85 *	2.85 *	
	6.0 m	F-Cradle + R-Dozer Up					4.16 *	4.09	2.83 *	2.55	2.43 *	2.43 *	6.10
		F-Cradle + R-Dozer Down					4.16 *	4.16 *	2.83 *	2.83 *	2.43 *	2.43 *	
		F-Dozer + R-Stabiliser Down					4.16 *	4.16 *	2.83 *	2.83 *	2.43 *	2.43 *	
		F-Stabiliser + R-Stabiliser Down					4.16 *	4.16 *	2.83 *	2.83 *	2.43 *	2.43 *	
	4.5 m	F-Cradle + R-Dozer Up					4.82 *	3.95	4.30 *	2.54	2.30 *	2.00	6.92
		F-Cradle + R-Dozer Down					4.82 *	4.40	4.30 *	2.82	2.30 *	2.23	
		F-Dozer + R-Stabiliser Down					4.82 *	4.82 *	4.30 *	4.30 *	2.30 *	2.30 *	
		F-Stabiliser + R-Stabiliser Down					4.82 *	4.82 *	4.30 *	4.30 *	2.30 *	2.30 *	
	3.0 m	F-Cradle + R-Dozer Up					5.88 *	3.70	4.77 *	2.44	2.30 *	1.78	7.35
		F-Cradle + R-Dozer Down					5.88 *	4.14	4.77 *	2.72	2.30 *	1.99	
		F-Dozer + R-Stabiliser Down					4.82 *	4.82 *	4.30 *	4.30 *	2.30 *	2.30 *	
		F-Stabiliser + R-Stabiliser Down					5.88 *	5.88 *	4.77 *	4.77 *	2.30 *	2.30 *	
	1.5 m	F-Cradle + R-Dozer Up					6.94 *	3.44	4.79	2.32	2.42 *	1.70	7.45
		F-Cradle + R-Dozer Down					5.88 *	4.14	4.77 *	2.72	2.30 *	1.99	
		F-Dozer + R-Stabiliser Down					6.94 *	6.44	5.24 *	4.20	2.42 *	2.42 *	
		F-Stabiliser + R-Stabiliser Down					6.94 *	6.94 *	5.24 *	5.17	2.42 *	2.42 *	
	0.0 m	F-Cradle + R-Dozer Up			5.19 *	5.19 *	7.33	3.29	4.70	2.24	2.68 *	1.74	7.24
		F-Cradle + R-Dozer Down			5.19 *	5.19 *	7.46 *	3.72	5.50 *	2.52	2.68 *	1.96	
		F-Dozer + R-Stabiliser Down			5.19 *	5.19 *	7.46 *	6.27	5.50 *	4.11	2.68 *	2.68 *	
		F-Stabiliser + R-Stabiliser Down			5.19 *	5.19 *	7.46 *	7.46 *	5.50 *	5.07	2.68 *	2.68 *	
-1.5 m	F-Cradle + R-Dozer Up			8.72 *	5.86	7.27 *	3.25	4.67	2.22	3.19 *	1.94	6.70	
	F-Cradle + R-Dozer Down			8.72 *	6.74	7.27 *	3.68	5.31 *	2.50	3.19 *	2.18		
	F-Dozer + R-Stabiliser Down			8.72 *	8.72 *	7.27 *	6.22	5.31 *	4.09	3.19 *	3.19 *		
	F-Stabiliser + R-Stabiliser Down			8.72 *	8.72 *	7.27 *	7.27 *	5.31 *	5.05	3.19 *	3.19 *		
-3.0 m	F-Cradle + R-Dozer Up			8.75 *	5.99	6.20 *	3.31			4.39 *	2.45	5.71	
	F-Cradle + R-Dozer Down			8.75 *	6.89	6.20 *	3.74			4.39 *	2.75		
	F-Dozer + R-Stabiliser Down			8.75 *	8.75 *	6.20 *	6.20 *			4.39 *	4.39 *		
	F-Stabiliser + R-Stabiliser Down			8.75 *	8.75 *	6.20 *	6.20 *			4.39 *	4.39 *		

Unit: 1000 kg	A B	Chassis Frame Attachment	1.5 m		3.0 m		4.5 m		6.0 m		Max. reach		A
			☺	☹	☺	☹	☺	☹	☺	☹	☺	☹	
One-piece boom 4600 m Arm 2.5 m Counterweight 3.3 t	7.5 m	F-Cradle + R-Dozer Up									2.77 *	2.77 *	3.93
		F-Cradle + R-Dozer Down									2.77 *	2.77 *	
		F-Dozer + R-Stabiliser Down									2.77 *	2.77 *	
		F-Stabiliser + R-Stabiliser Down									2.77 *	2.77 *	
	6.0 m	F-Cradle + R-Dozer Up					3.98 *	3.98 *			2.27 *	2.27 *	5.55
		F-Cradle + R-Dozer Down					3.98 *	3.98 *			2.27 *	2.27 *	
		F-Dozer + R-Stabiliser Down					3.98 *	3.98 *			2.27 *	2.27 *	
		F-Stabiliser + R-Stabiliser Down					3.98 *	3.98 *			2.27 *	2.27 *	
	4.5 m	F-Cradle + R-Dozer Up					4.68 *	3.97	3.54 *	2.55	2.13 *	2.13 *	6.44
		F-Cradle + R-Dozer Down					4.68 *	4.41	3.54 *	2.83	2.13 *	2.13 *	
		F-Dozer + R-Stabiliser Down					4.68 *	4.68 *	3.54 *	3.54 *	2.13 *	2.13 *	
		F-Stabiliser + R-Stabiliser Down					4.68 *	4.68 *	3.54 *	3.54 *	2.13 *	2.13 *	
	3.0 m	F-Cradle + R-Dozer Up			8.98 *	6.88	6.30 *	3.77	4.84 *	2.48	2.15 *	2	6.90
		F-Cradle + R-Dozer Down			8.98 *	7.81	6.30 *	4.21	4.84 *	2.76	2.15 *	2.15 *	
		F-Dozer + R-Stabiliser Down			8.98 *	8.98 *	6.30 *	6.30 *	4.84 *	4.34	2.15 *	2.15 *	
		F-Stabiliser + R-Stabiliser Down			8.98 *	8.98 *	6.30 *	6.30 *	4.84 *	4.84 *	2.15 *	2.15 *	
	1.5 m	F-Cradle + R-Dozer Up					7.28 *	3.56	4.82	2.39	2.29 *	1.91	7.01
		F-Cradle + R-Dozer Down					7.28 *	3.99	5.55 *	2.66	2.29 *	2.13	
		F-Dozer + R-Stabiliser Down					7.28 *	6.53	5.55 *	4.24	2.29 *	2.29 *	
		F-Stabiliser + R-Stabiliser Down					7.28 *	7.28 *	5.55 *	5.2	2.29 *	2.29 *	
	0.0 m	F-Cradle + R-Dozer Up			8.23 *	6.06	7.42	3.42	4.74	2.32	2.59 *	1.97	6.79
		F-Cradle + R-Dozer Down			8.23 *	6.95	7.68 *	3.84	5.64 *	2.6	2.59 *	2.20	
		F-Dozer + R-Stabiliser Down			8.23 *	8.23 *	7.68 *	6.37	5.64 *	4.17	2.59 *	2.59 *	
		F-Stabiliser + R-Stabiliser Down			8.23 *	8.23 *	7.68 *	7.68 *	5.64 *	5.12	2.59 *	2.59 *	
-1.5 m	F-Cradle + R-Dozer Up	6.29 *	6.29 *	10.47 *	6.06	7.22 *	3.38	4.73	2.31	3.22 *	2.22	6.20	
	F-Cradle + R-Dozer Down	6.29 *	6.29 *	10.47 *	6.94	7.22 *	3.8	5.06 *	2.59	3.22 *	2.48		
	F-Dozer + R-Stabiliser Down	6.29 *	6.29 *	10.47 *	10.47 *	7.22 *	6.32	5.06 *	4.16	3.22 *	3.22 *		
	F-Stabiliser + R-Stabiliser Down	6.29 *	6.29 *	10.47 *	10.47 *	7.22 *	7.22 *	5.06 *	5.06 *	3.22 *	3.22 *		
-3.0 m	F-Cradle + R-Dozer Up			7.93 *	6.18	5.47 *	3.44			4.34 *	2.93	5.11	
	F-Cradle + R-Dozer Down			7.93 *	7.07	5.47 *	3.87			4.34 *	3.27		
	F-Dozer + R-Stabiliser Down			7.93 *	7.93 *	5.47 *	5.47 *			4.34 *	4.34 *		
	F-Stabiliser + R-Stabiliser Down			7.93 *	7.93 *	5.47 *	5.47 *			4.34 *	4.34 *		



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

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

# Standard and optional equipment

## Engine

Perkins 1204F, 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)	●
Breaker piping	●
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 and lower windshield wiper	●
Rain visor	●
Rear window defroster switch	●
Adjustable PPC wrist control levers for arm, boom, bucket and swing	●
Adjustable tiltable steering column	●
Pedal for auxiliary control 1 & 2 ways	●
Jog shuttle switch	●
7" (18 cm) TFT LCD colour monitor panel	●
Attachment management system	●
Engine speed (RPM) control dial	●
Automatic travel speed	●
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	●
12 V spare power socket	●
Serial communication port for laptop PC interface	●
Remote radio ON/OFF switch	●
Loudspeakers and connections for radio	●
MP3/USB radio or MP3/USB radio with CD player	○

## Safety

Roll Over Protective Structure (ROPS)	●
Boom and arm cylinder safety valves	●
Overload warning device	●
Large guard rails on upper structure and steps	●
Rotating beacon	●
Rear-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)	○
Front window upper and lower guards	○
Side-view camera	○

## Other

Two-piece boom: 4987 mm (lower : 2000 mm, upper: 3350 mm) - arm: 2500 mm - counterweight: 3315 kg	●
Doosan Connect Telematic system	●
Auto shut-off fuel filler pump	●
Double element air cleaner	●
Fuel pre-filter with water separator sensor	●
Dust screen for radiator/oil cooler	●
Self-diagnostic function	●
Alternator (24 V, 85 A) - Battery (2 × 12 V, 100 Ah)	●
Powershift 2-speed transmission + creep mode	●
Remote greasing for swing circle and work group pivot points	●

Guards for work lights	●
Arms: 2100 mm & 2500 mm (for one-piece boom 4600mm)	○
Arm: 2100 mm (for two-piece boom)	○
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	○
Double pump flow	○
Bio oil	○
Automatic lubrication system	○
Road homologation (depending on countries)	○

## Undercarriage

Front clamshell cradle with rear dozer blade	●
Front parallel dozer blade and rear independent stabilisers	○
2 or 4 independent Stabilisers with cylinder protection	○
Double tyres 10.00-20-14PR	●
Front axle oscillation lock modes (On/Off/Auto)	●
Piston rod protection of Stabiliser cylinders	●
Lockable tool box (left side)	●
Rear & front chain tightening eyes	●
Lockable tool box (right side)	○

Standard: ●  
Optional: ○



Side-view camera



Tool box



Double pump flow (for attachments requiring high hydraulic capacity)



Two-piece boom



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.

## WORK EFFICIENCY MANAGEMENT

## JOB SITE MANAGEMENT

## PROACTIVE SERVICE

## PREVENTIVE MAINTENANCE

### OPERATION TREND

Total operation hours and operation hours by mode

### FUEL EFFICIENCY\*

Fuel level and fuel consumption

### LOCATION

GPS and geo-fence

### REPORTS

Operation report & utilization

### WARNING & ALERT

Detect machine warnings, antenna disconnection, and geo/time fence

### FILTER & OIL MANAGEMENT

Preventive maintenance by item replacement cycle

### TELEMATICS TERMINAL

Terminal device is installed and connected to a machine to get machine data.

### TELECOMMUNICATION

Doosan provides Dual mode (Mobile, Satellite) communication to maximize communication coverage.

### DOOSANCONNECT WEB

Users can monitor machine status from DoosanCONNECT Web.

