129.4 kW (174 HP) at 1900 rpm

18400 - 20300 kg

0.38 - 0.93 $m^3$

DOOSAN

# DX190W-3 | Wheeled Excavator


# Doosan – Building your tomorrow today

## Be part of the great Doosan family

**The Doosan Group was founded in 1896. It is headquartered in Seoul, South Korea, and today is one of the fastest growing companies in the world:**

**From 1896, the first modern local store in Korea**

**More than 100 years of history**

**20th century & beyond, major player in various industries all around the world**

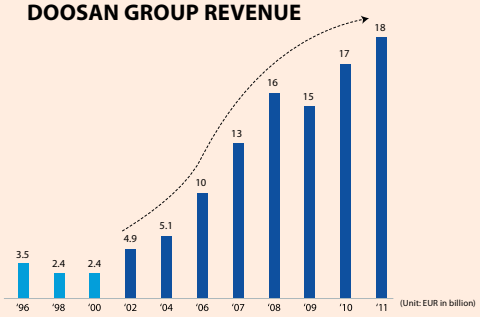
**43,100 employees in 34 countries**

**Today, a global leader in the Infrastructure Support Business (ISB)**

**Global presence:**
- 56 subsidiaries
- 3,700 distributors worldwide

### AN EXPLOSIVE GROWTH RECORD

**DOOSAN GROUP REVENUE**




**Dramatic growth over the past decade:**
- 23% average annual revenue growth since 2000
- From 2.4 to 18.0 EUR billion between 1998 and 2011




## Doosan Group

### Doosan engine
- World N° 2 leader in medium speed marine diesel engines

### Doosan Mecatec
- World N° 1 chemical process equipment company
- 60,000 tonne annual production capacity

### Doosan Construction & Engineering

A pioneering leader in construction of residential and public buildings, civil works and industrial facilities.

### Doosan Heavy Industries & Construction
- World N° 1 in desalination plant
- World N° 1 in heat recovery steam generator market
- World N° 1 in mould & tool steel
- World N° 3 in crankshafts

### Doosan Infracore
- World N° 1 in compact loaders
- World N° 1 in attachments
- World N° 1 in portable air compressors

# Doosan – One-stop shop


## From machine manufacturer... TO FULL SOLUTION PROVIDER

All Doosan Infracore Construction Equipment products are designed and built to deliver the highest levels of performance and productivity. Parts and service support are intended to fully maintain the performance, productivity and reliability expected of our products throughout their entire lifetime as well as ensure the highest trade-in and residual values.


## Ask your dealer for a full range of services designed for you!

Your dealer is your local specialist to ensure you receive the maximum benefits from our integrated package. Think in advance, plan ahead to ensure the success of your equipment!


❶ Genuine parts
❷ Extension of warranty
❸ Maintenance contract
❹ Telematics
❺ Monitoring systems
❻ Financial solutions
❼ Doosan approved attachments


Construction Equipment

Machine tools

Engines

## Doosan Infracore Construction Equipment

**We have been building a global production and business network since 1990 to become one of the world's foremost construction equipment manufacturers. In addition to operating large-scale factories worldwide, we have also established sales subsidiaries, branches and a dealership network all over the globe, making us a truly global player in every respect.**

# TAKE A TOUR


## EXPERT CONTROL

- Forward - Neutral - Reverse switch on the right joystick
- 3 speeds (high, low, creep) with cruise control
- Jog shuttle switch to control various machine functions
- 4 working modes and 4 power modes for maximum efficiency
- As standard, hydraulic flow and pressure adjustable from the cab with 10 attachment presets
- Proportional control of auxiliary hydraulics to operate attachments smoothly and precisely
- New, user-friendly 7" TFT LCD colour monitor with full access to machine settings and maintenance data
- Rear camera and large side mirrors (side camera optional)
- 3 front axle oscillation lock modes (On/Off/Auto)

New work lights with improved illumination (standard: 2 front frame, 4 front & 2 rear cab-mounted, 2 boom mounted and 1 rear side)

## MAXIMUM EFFICIENCY

- 6-cylinder powerful DOOSAN DL06KB "Common Rail", Stage IIIB compliant EGR engine
- Reduced fuel consumption (up to 12%)
- e-EPOS System (Electronic Power Optimising System) and hydraulic power boost function for optimised combustion and minimised emissions
- Efficient conversion of engine output into hydraulic performance for better fuel efficiency and lower costs
- Large pump capacity (2 x 200 l/min) to boost hydraulic performance and attachment control
- Electronic fan clutch reduces fuel consumption and noise level while improving cooling performance

## COMFORTABLE WORKSPACE

- Spacious, newly designed, pressurised ROPS cab with low noise and vibration levels
- Fully adjustable heated air suspension seat as standard
- Large sun roof for extra overhead visibility
- Air conditioning with climate control
- Extra-large door for easy access


## EASY MAINTENANCE

- Easy access to all maintenance components
- Maintenance data available directly from control panel
- Centralised filters
- Fuel pre-filter with water separator
- PC access for maintenance and repairs
- Self-diagnosis function
- Reliable Doosan parts

## SOLID STRENGTH

- Reinforced undercarriage and smooth transmission ensure a comfortable ride and better access to rough terrain
- Large reinforced covers completely protect the dozer and stabilizer cylinders

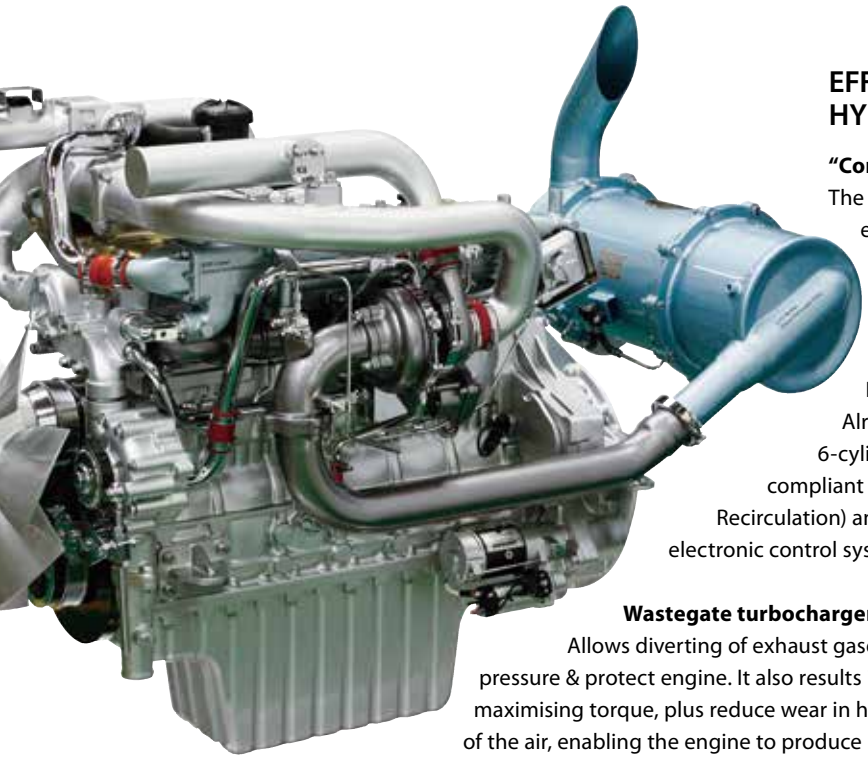
# Improved productivity and fuel efficiency

## Expect the best return on your investment

**The DX190W-3 takes even the heaviest tasks in its stride with efficient, dependable performance that saves you time and money. Increased digging power, lifting capacities and speed combine to deliver performance you can rely on day after day. Improved fuel efficiency means you can keep costs down and reduce the environmental impact.**


### 5 ASSETS FOR YOUR BENEFIT!

- **Power: Doosan 6-cylinder engine 129.4 kW (174 HP) at 1900 rpm, up to 12% reduced fuel consumption**
- **Excavation: record digging forces: bucket up to 13.9 t & arm up to 11.4 t**
- **Productivity: highest-in-class lifting capacities at 6 m reach & ground level: front: 4.58 t & side: 2.70 t**
- **Traction: excellent traction force of 11.2 t**
- **Size: ideal dimensions and working range**



## EFFICIENT MANAGEMENT OF FUEL AND HYDRAULICS

**"Common Rail" Doosan DL06KB engine**

The heart of the DX190W-3 is the "Common Rail" DOOSAN DL06KB engine, carefully designed with common rail injection and 4 valves per cylinder. The engine delivers 129.4 kW (174 HP / 176 PS) at only 1900 rpm. Powerful torque allows efficient use of the hydraulic system and faster working cycles.

**Doosan Stage IIIB (Tier 4i) EGR technology with DPF**

Already known for its outstanding reliability, the DOOSAN DL06KB 6-cylinder engine has been optimised for the DX190W-3 and is now compliant with the Stage IIIB European regulations using EGR (Exhaust Gas Recirculation) and DPF (Diesel Particulate Filter). In combination with the e-EPOS electronic control system, it offers the ultimate in power delivery and fuel economy.

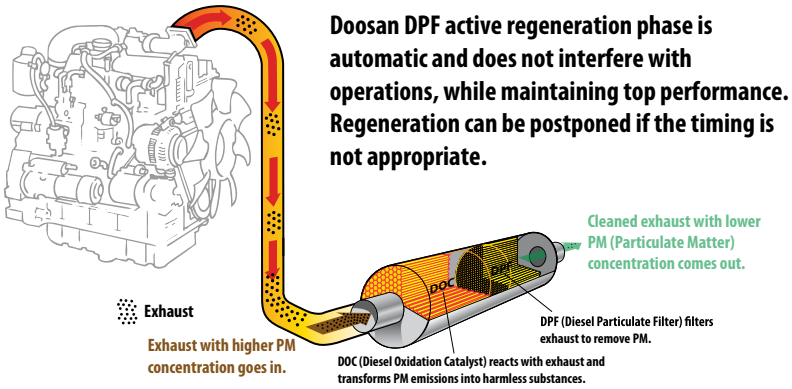
**Wastegate turbocharger**

Allows diverting of exhaust gases away from the turbine wheel to better regulate max boost pressure & protect engine. It also results in less lag time before turbo begins to spool/create boost maximising torque, plus reduce 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.

## ADVANCED TECHNOLOGY FOR OPTIMUM POWER MANAGEMENT

**e-EPOS system (Electronic Power Optimising System)**

If the engine is the heart of the excavator, the e-EPOS is its brain. It provides 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 the engine and hydraulic system, ensuring power is delivered exactly as needed.




**Doosan DPF active regeneration phase is automatic and does not interfere with operations, while maintaining top performance. Regeneration can be postponed if the timing is not appropriate.**

**Simple and efficient**

- Choice between 4 power modes and 4 working modes guarantees optimum performance in all conditions
- Proportional auxiliary control for attachments
- Regulation and precise control of the flow rate required by the work group
- Self-diagnosis function allows technical problems to be resolved quickly and efficiently
- Operational memory provides a graphic display of the machine status
- Maintenance and oil change intervals can be displayed

**Fuel efficiency**

- Auto-idle function enables fuel saving
- New electronic fan clutch optimises cooling for more fuel savings
- Eco gauge: monitors fuel consumption to maintain economic operation
- Improved Main Control Valve (MCV) performance reduces energy loss
- Additional sensor allows a more efficient selection of flow/pressure/rpm according to load requirements


**Quick and efficient**

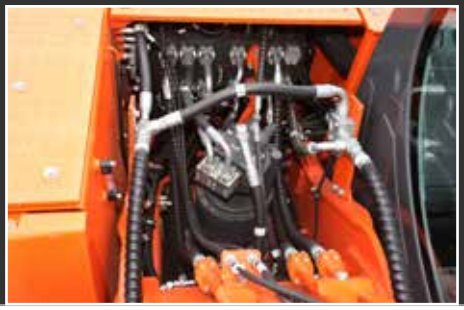
The main hydraulic pumps have an increased capacity of 2 x 200 l/min, reducing cycle times for heightened productivity. A high capacity gear pump improves pilot line efficiency.

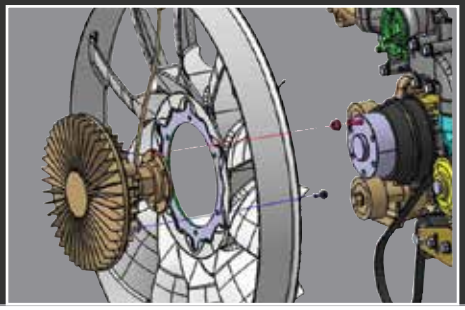
**Smooth and fast**

The swing drive minimises shocks during rotation while making increased torque available to ensure rapid cycles.

**Electronic viscous fan clutch**

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





# The ideal workspace – designed around you

**The DX190W-3 is designed to provide you with the best possible working conditions. The sophisticated pressurised ROPS 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.**

**Heated air suspension seat (standard)**
As well as being adjustable and offering lumbar support, the seat has an air suspension system to reduce vibration. It also features a button to activate the seat heating system. A storage box has been placed under the seat for extra convenience.

**Storage space**
Plenty of storage space means you can keep all your personal belongings within reach. The new cab contains 7 storage compartments including one hot/cool box (linked to the HVAC system).


**Air conditioning with climate control**
The electronically controlled air conditioning system features 5 different operating modes allowing the operator to adjust the airflow to suit conditions. A recirculated air function is also available.


**MP3/USB radio and USB port**
A USB port (standard) allows connection of an MP3 player (MP3/USB radio with CD player optional).

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

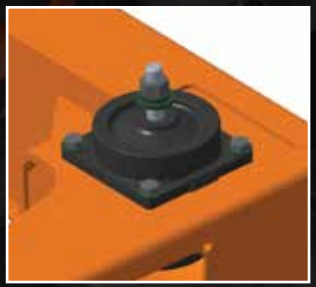
## ERGONOMIC OPERATOR ENVIRONMENT

**Feel the comfort of a seat that fits you perfectly: Using a dual positioning cursor, you can slide the seat back from the joysticks for the best working position. You can also slide the entire seat assembly to adjust the reach to the control pedals to your leg length.**

1. **Large sun roof and sun visor**
2. **Robust ergonomic pedals**
3. **Flat, spacious, easy-to-clean floor**
4. **Upper front window is strut-assisted for easy, reliable adjustment and integrates a sun shade**
5. **Joysticks and switches are integrated in adjustable control consoles**
6. **Separate seat height adjustment lever and cushion tilting function**
7. **Storage compartment for sunglasses**
8. **Hot/cool box**
9. **Photo sensor detects radiant energy of the sun and adjusts temperature automatically**
10. **Adjustable steering column**

### CABSUS MOUNT

The cab features a new suspension system (CabSus mount) that combines high vibration dampening with outstanding protection against impact. The system absorbs shocks and vibrations much more effectively than a conventional viscous suspension system.



# Precision control for higher output

**Doosan's unique new jog shuttle switch gives you easy, precise control over all machine functions. Proportional auxiliary flow means that the excavator's huge power is matched by smooth, confident manoeuvres. Using highly sensitive joysticks and clear controls positioned for convenient access, you are able to work safely and confidently with minimum effort. Even the switches have been ergonomically placed on the right and positioned according to the frequency with which they are used.**
**The highest standards of efficiency are just a finger's reach away.**


**Jog shuttle control switch**
- Power mode and Work mode
- Auto-idle / Buzzer Stop
- Adjustment of rpm, hydraulic flow and pressure for attachments
- 10 different attachment presets
- Rear view camera
- Multimedia: - video: AVI (DivX®), MP4, WMV
  - audio: MP3
- Menu change or selection

**Colour LCD monitor panel**
The upgraded 7" TFT LCD panel features a day and night display and has been relocated within the operator's line of sight. The monitor is user-friendly and 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 fully controllable, directly via the screen or using the jog shuttle switch.


**4 Work modes to suit your application**
- 1-way mode and 2-way mode
- Digging mode and lifting mode

**4 Power modes for maximum efficiency**
- Power plus mode
- Power mode
- Standard mode
- Economy mode

**Gauges**
- Engine coolant and hydraulic oil temperatures
- Fuel level
- Eco symbol: changes colour when operating conditions change (idle, normal or loading)
- Eco gauge: shows the average fuel efficiency for 1 minute of operation
- Speed display
- Warning symbols

**4 Work modes**

**4 Power modes**

**Auto-idle**


**User menu**


**Service menu**


**Attachment presets**


**Filter/oil information**


**Anti-theft protection**


**Monitoring**

**Your safety – our biggest concern**
- A rear view camera gives you a clear view of what's happening behind the machine. A side view camera is also available as an option for jobs requiring extra safety measures
- Cab and boom lights are fitted as standard, greatly enhancing safety on night-time jobs
- Large side mirrors improve all-round visibility (ISO compliant)

Other standard safety features include: cruise control, 3 front axle oscillation lock modes (On/Off/Auto), automatic overheating prevention, low oil pressure sensor, engine emergency cut-off switch, auxiliary mode switch, overload warning device, cab swing lock pin, etc.

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

**Simple operation**

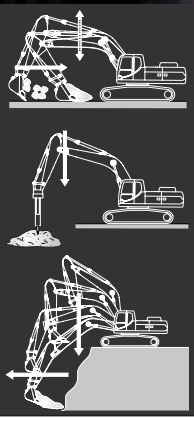
- "Short stroke" joysticks enable easy, precise control of all operations
- A thumb wheel switch and buttons on the joysticks allow proportional control of attachments such as grabs, crushers and grapples as well as control of rotating attachments
- Joystick integrated Forward - Neutral - Reverse (FNR) switch

**Dynamic power management**

- 2-speed POWER-SHIFT transmission, with creep speed
- Activation of the power boost control system increases digging power by 10%
- A one-touch deceleration button immediately reduces engine speed to low or idle
- Auto-idling starts after 4 seconds at low rpm. This decreases fuel consumption and reduces noise levels in the cab
- Jog shuttle dial for engine rpm

**Floating boom function**

- The intelligent floating boom mode allows the boom to move up and down freely when external force is applied.
- The breaker mode restricts the boom to downward movement only. This means that the breaker can be operated using only the weight of the work group on the front, without additional force. The breaker remains in constant contact with the object. The result is reduced shock and vibration and longer breaker service life.
- During truck loading, the lowering of the boom can be controlled without hydraulic pump flow discharge. This increases productivity and fuel efficiency.



# Quality that never lets you down

## Designed for long-term heavy duty use

**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 in the most extreme conditions.**

### UNDERCARRIAGE DESIGN

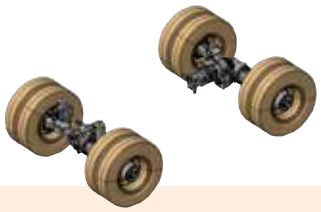
A rigid, welded frame provides excellent durability. Efficient routing of hydraulic lines, transmission and rear differential protection and heavy duty axles make the undercarriage perfect for wheeled excavator applications. An oscillating axle lock is available.

**New drive line concept**

The new travel motor and 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.



**Strengthened boom**

Finite Element Analysis (FEA) has been used to calculate the best load distribution throughout the boom structure. Combined with increased material thickness, this means that element fatigue is limited and both reliability and component life are increased.

**Heavy duty axles**

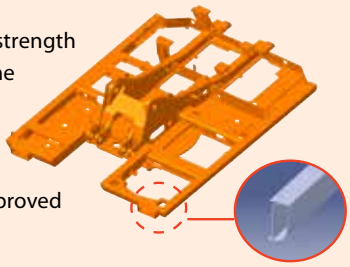
The front axle offers wide oscillating and steering angles. The transmission is mounted directly on the rear axle for protection and optimum ground clearance.

**Arm assembly**

Cast elements and reinforcements have been added to give the arm assembly greater strength and a longer lifetime. The arm end boss, arm link boss and side plates have been combined for increased durability

**D-type frame**

The D-type frame and chassis frame add strength and minimise distortion due to shocks. The chassis frame, stabilizer assembly and dozer blade have been designed using interpretative techniques and tested with 3 dimension CAD tools to ensure improved durability and reliability.



**Protected hydraulics**

The hydraulic line routing is straight and simple for a neat, compact design that enhances its durability. The gap between the pipe flange and rubber cushion has been reduced to minimise slack.


**Cast counterweight**

A cast counterweight minimises deformation resulting from external impact. Operating stability has been increased by use of a low centre of gravity design.

**LED (luminescent diode) type stop lamps**

The use of LED type stop lamps and blinkers ensures considerably improved average service life compared to the existing standard filament bulbs. Furthermore, the faster lighting speed helps to prevent accidents.

**The undercarriage provides excellent stability and durability. It is designed to excel in tough working environments.**


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

1. Large reinforced covers protect the dozer and stabilizer cylinders from falling stones or objects while the machine is in operation.
2. The shape of the dozer blade is designed to facilitate pulling and mixing of materials.
3. The stabilizers 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. The parts of the stabilizers and dozer blade in contact with the ground have been carefully designed to prevent damage to the surface.
5. The stabilizer pads are made as wide as possible to reduce ground pressure.

**Extra strong sintered bushings**

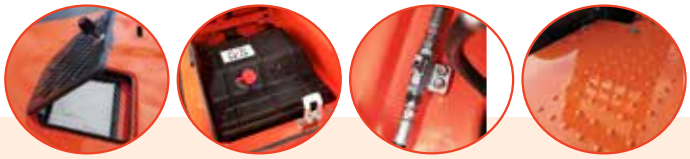
A highly lubricated metal is used for the boom pivot to increase the component lifetime and extend the greasing intervals.
The bucket pivot has Enhanced Macrosurface bushings which feature a special surface pattern and self-lubricating coating to reduce friction and provide more efficient evacuation of debris.

# More value – less maintenance

**Short maintenance operations at long intervals mean you can depend on your equipment being available on site when it's needed. The DX190W-3 is designed for simple routine maintenance, while skilled Doosan technicians are available to provide extra support when you need it. You can 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 the DX190W-3 an economical and rewarding choice.**

**Maintenance access made simple**

- Large handrails and anti-slip steps and plates provide safer, easier access to the engine compartment
- The 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
- Cock valves are fitted on the pre-filter piping line and fuel tank drain piping to make servicing easier and prevent pollution from leakage



**Access to components**

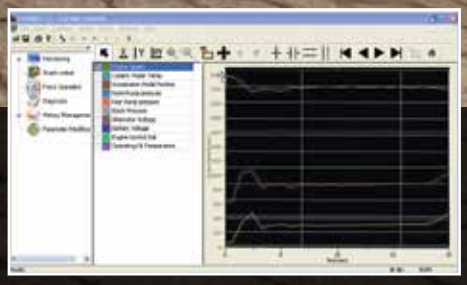
- Engine parts can be easily reached via the top and side panels
- Access to the various radiators and filters is very easy, making routine maintenance easier

- New, convenient location of the auto shut-off fuel filling pump

**Protective oil return filter**
The protection of the hydraulic system is made more effective by the use of glass fibre technology in the main oil return filter. With more than 99.5% of foreign particles filtered out, the oil change interval is extended.

**Engine oil filter**
The engine oil filter offers a high level of filtration, allowing a long interval between changes. It is easy to access and is positioned to avoid contaminating the surrounding environment.

**Fuel pre-filter with water separator sensor**
High efficiency fuel filtration is attained by the use of multiple filters. These include a fuel pre-filter fitted with a water separator that removes moisture, dirt and debris from the fuel. A warning sensor is added to each fuel filter to indicate when water draining is required.



**PC monitoring**
A PC monitoring function enables connection to the e-EPOS system. Various parameters can be checked during maintenance, including pump pressures and engine speed. This information can be saved and printed for analysis.

**Convenient fuse box**
The fuse box is located in the storage compartment behind the seat, providing a clean environment and convenient access.

**DPF regeneration switch**
Active regeneration is automatic and doesn't interfere with operation. When the level of soot is too high, a warning symbol alerts the operator that he can activate regeneration at any time.

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

# Technical specifications

## Engine

**• Model**

Doosan DL06KB
4-Cycle Water-Cooled, Wastegate Turbocharger,
Common Rail Direct Injection, Exhaust Gas Recirculation

**• No. of cylinders**

6

**• Rated power at 1900 rpm**

129.4 kW (176 PS) (DIN 6271)
126.5 kW (170 HP) (SAE J1349)
129.4 kW (174 HP) (SAE J1995)

**• Max. torque at 1400 rpm**

73 kgf/m (716 Nm)

**• Idle (low - high)**

800 [±50] -2000 [±50] rpm

**• Piston displacement**

5890 $cm^3$

**• Bore x stroke**

Ø 100 x 125 mm

**• Starter**

24 V / 6.0 kW

**• Batteries / Alternator**

2 x 12 V, 150 Ah / 24 V, 80 A

**• Air filter**

Double element and pre-filtered Turbo with automatic dust evacuation.

| | |
|---|---|
| Filtration area | 7.6 $m^2$ (outer), 1.4 $m^2$ (inner) |
| Size (diameter x length) | 279.4 mm x 489.5 mm |

## Hydraulic system

The brain of the excavator is the e-EPOS (Electronic Power Optimising System). It allows operation of the hydraulic system to be optimised for all working conditions and minimises fuel consumption. The e-EPOS is connected to the engine's electronic control unit (ECU) via a data transfer link to harmonise the operation of the engine and the hydraulic system.

- The hydraulic system allows independent or combined operations
- Two travel speeds offer either increased torque or high speed
- Cross-sensing pump system for fuel savings
- Auto deceleration system
- Four operating modes, four power modes
- Button control of flow in auxiliary hydraulic circuits
- Computer-aided pump flow control

**• Maximum system pressure**

Work/travel: 357 kg/$cm^2$ [±5]
Swing: 275 kg/$cm^2$ [±5]
Pilot: 40 kgf/$cm^2$

## Pumps

| Pump | Type | Displacement | Max. flow @ 1900 rpm | Relief valve pressure |
|---|---|---|---|---|
| Main (2) | Tandem, Axial piston | 105.3 $cm^3$/rev | 2 x 200 l/min | - |
| Pilot | Gear | 10.7 $cm^3$/rev | 26.1 l/min | 40 kgf/$cm^2$ |
| Steering | Gear | 34.5 $cm^3$/rev | 65.5 l/min | 190 kgf/$cm^2$ |
| Brake | Gear | 11.2 $cm^3$/rev | 21.3 l/min | 160 kgf/$cm^2$ |

## Undercarriage

Very robust construction throughout. All welded structures designed to limit stresses. High-quality, durable materials. Lateral chassis welded and rigidly attached to undercarriage. 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) front axle oscillation lock.

**• Front axle oscillation**

+/- 8° 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.

## Hydraulic cylinders

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

| Cylinders | Quantity | Bore x rod diameter x stroke |
|---|---|---|
| One-piece boom | 2 | 120 x 85 x 1180 mm |
| Arm | 1 | 125 x 90 x 1470 mm |
| Bucket | 1 | 110 x 75 x 1030 mm |
| Two-piece boom upper | 2 | 120 x 85 x 1015 mm |
| Two-piece boom lower | 1 | 160 x 95 x 760 mm |
| Two-piece boom, arm | 1 | 125 x 90 x 1470 mm |
| Blade | 2 | 110 x 70 x 170 mm |
| Stabilizer | 2 | 130 x 80 x 397 mm |

## Swing mechanism

- High-torque, axial piston motor with planetary reduction gear in oil bath
- Swing circle: 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
- Max. swing speed (Eff.=0.98): 0 to 10.9 rpm
- Max. swing torque (Eff.=0.75): 4836 kgf/m

## Drive

The wheels are driven by an axial piston engine 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.

**• Travel speed**

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

| High | / Low | / Creep |
|---|---|---|
| 35.7 | / 9.4 | / 3.4 km/h |

**• Maximum traction**

11.2 t

**• Minimum turning radius**

7.0 m (6.7 m without front dozer)

## Fluid capacities

**• Fuel tank**

310 l

**• Cooling system (radiator capacity)**

24 l

**• Hydraulic oil tank**

116 l

**• Engine oil**

25 l

**• Swing drive**

3.8 l

**• Front axle hub**

2 x 2.5 l

**• Rear axle hub**

2 x 2.5 l

**• Front Axle Case**

10.5 l

**• Rear Axle Case**

14.0 l

**• Transmission**

2.5 l

## Noise emission

**• A-weighted emission sound pressure level at the operator's position, $L_{pAd}$ (ISO 6396:2008)**

Declared : 71 dB(A)
Measured : 70 dB(A)

**• A-weighted sound power level, $L_{WAd}$ (2000/14/EC)**

Declared : 101 dB(A)
Measured : 99 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

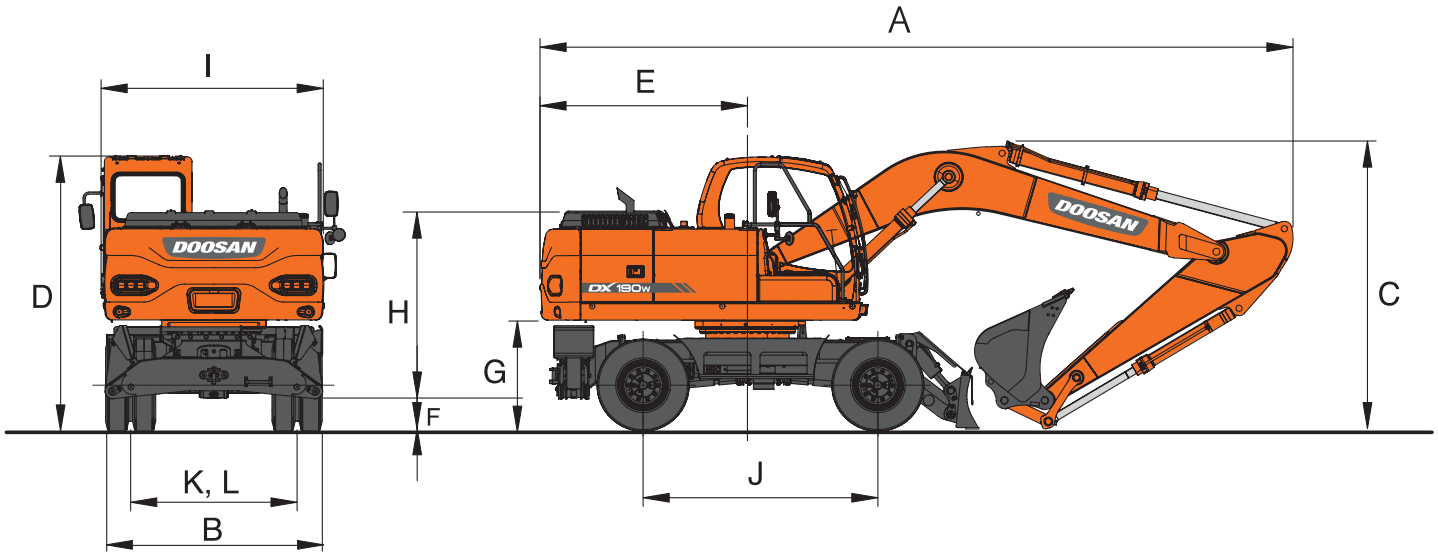
| Bucket Type | Capacity ($m^3$) SAE | Width (mm) | | Weight (kg) | One-piece boom | | | Two-piece boom | |
|---|---|---|---|---|---|---|---|---|---|
| | | With side cutters | Without side cutters | | Arm: 2.2 m | Arm: 2.6 m | Arm: 3.1 m | Arm: 2.3 m | Arm: 2.6 m |
| GP | 0.38 | 640 | 604 | 428 | A | A | A | A | A |
| | 0.45 | 775 | 727 | 452 | A | A | A | A | A |
| | 0.57 | 913 | 865 | 507 | A | A | A | A | A |
| | 0.70 | 1063 | 1015 | 553 | A | A | B | B | B |
| | 0.76 | 1127 | 1079 | 587 | A | B | C | C | C |
| | 0.80 | 1171 | 1123 | 601 | B | B | C | C | C |
| | 0.93 | 1351 | 1267 | 650 | C | C | D | D | D |
| HD | 0.66 | 994 | 916 | 692 | A | B | B | B | C |
| | 0.73 | 1064 | 986 | 732 | B | B | C | C | C |
| | 0.80 | 1142 | 1064 | 761 | B | C | D | D | D |

Based on ISO 10567 and SAE J296, arm length without quick-coupler. For reference only.
A: Suitable for materials with a density less than or equal to 2100 kg/$m^3$ / B: Suitable for materials with a density less than or equal to 1800 kg/$m^3$
C: Suitable for materials with a density less than or equal to 1500 kg/$m^3$ / D: Suitable for materials with a density less than or equal to 1200 kg/$m^3$
Counterweight: 3.6 t

## Digging forces (ISO)

| | | One-piece boom: 5200 mm Arm: 3100 mm Bucket: 0.80 $m^3$ | One-piece boom: 5200 mm Arm: 2600 mm Bucket: 0.80 $m^3$ | One-piece boom: 5200 mm Arm: 2200 mm Bucket: 0.80 $m^3$ | Two-piece boom: 5440 mm Arm: 2300 mm Bucket: 0.80 $m^3$ | Two-piece boom: 5440 mm Arm: 2600 mm Bucket: 0.76 $m^3$ |
|---|---|---|---|---|---|---|
| BUCKET (Normal/Press. Up) | t | 13.1 / 13.8 | 13.1 / 13.8 | 13.1 / 13.8 | 13.1 / 13.8 | 13.1 / 13.8 |
| | kN | 128.4 / 135.3 | 128.4 / 135.3 | 128.4 / 135.3 | 128.4 / 135.3 | 128.4 / 135.3 |
| ARM (Normal/Press. Up) | t | 8.6 / 9.0 | 9.3 / 9.8 | 10.8 / 11.4 | 10.0 / 10.6 | 9.3 / 9.8 |
| | kN | 84.3/ 88.2 | 91.2 / 96.1 | 105.9 / 111.8 | 98.1 / 103.9 | 91.2 / 96.1 |

# Dimensions




## * Dimensions one-piece and two-piece boom

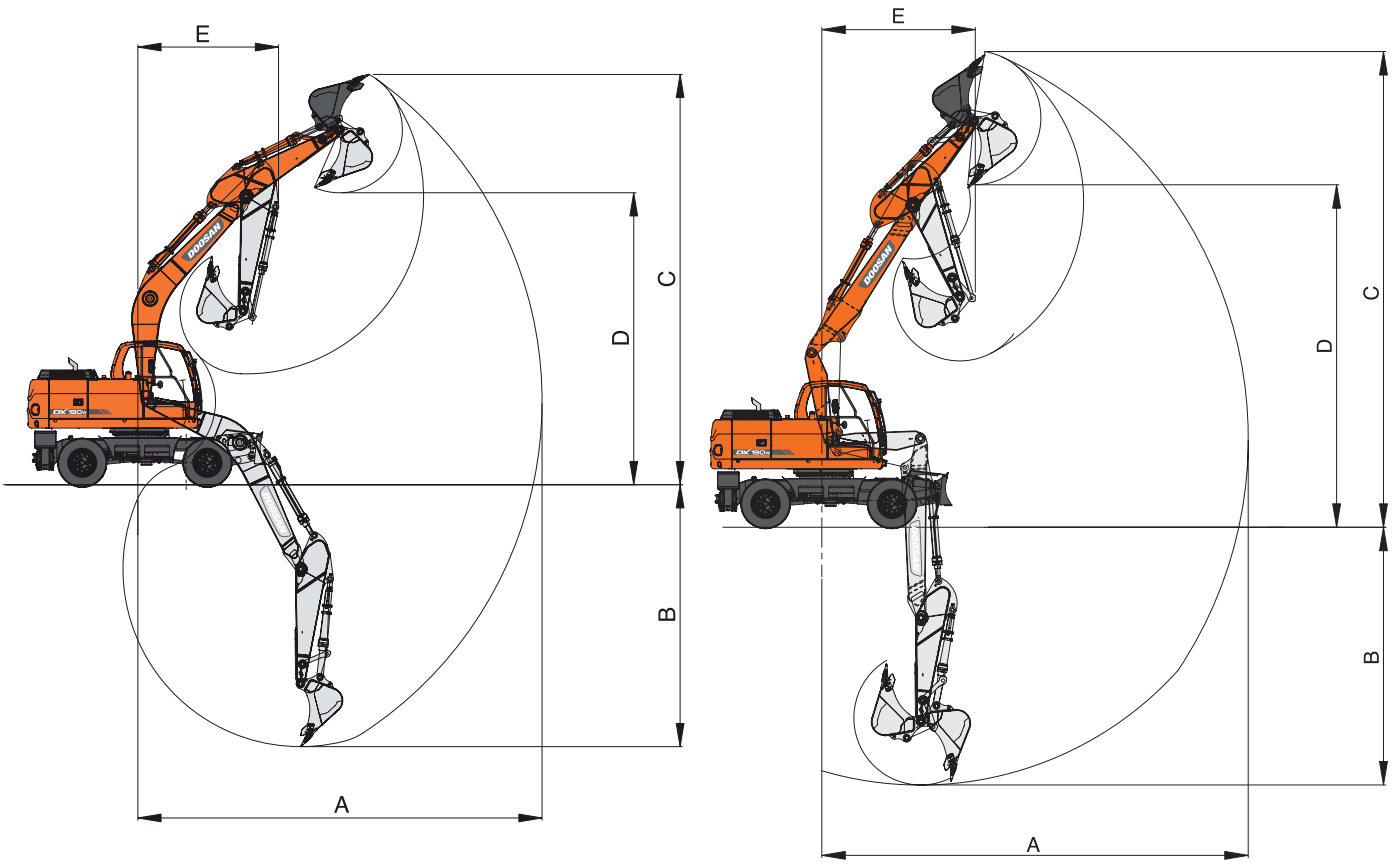
| Boom length - mm | | 5200 (one-piece boom) | | | 5440 (two-piece boom) | |
|---|---|---|---|---|---|---|
| Arm length - mm | | 2600 | 2200 | 3100 | 2300 | 2600 |
| A | Shipping length - mm | 8814 | 8897 | 8520 | 8940 | 8745 |
| B | Shipping width - mm | 2534 | 2534 | 2534 | 2534 | 2534 |
| C | Shipping height (boom) - mm | 3354 | 3330 | 3600 | 3130 | 3340 |
| D | Height over cab - mm | 3136 | 3136 | 3136 | 3136 | 3136 |
| E | Counterweight swing clearance - mm | 2503 | 2503 | 2503 | 2503 | 2503 |
| F | Ground clearance - mm | 350 | 350 | 350 | 350 | 350 |
| G | Counterweight clearance - mm | 1244 | 1244 | 1244 | 1244 | 1244 |
| H | Engine cover height - mm | 2530 | 2530 | 2530 | 2530 | 2530 |
| I | Upper housing width - mm | 2520 | 2520 | 2520 | 2520 | 2520 |
| J | Wheel base - mm | 2650 | 2650 | 2650 | 2650 | 2650 |
| K | Tread width - mm | 1914 | 1914 | 1914 | 1914 | 1914 |

## * Component weights

| Item | | Remarks |
|---|---|---|
| Upperstructure without front - kg | 8495 | Including counterweight |
| Undercarriage - kg | 6925 | Including swing bearing |
| Front assembly - kg | 2990 | |
| Counterweight - kg | 3600 | |
| Boom 5200 mm - kg | 1136 | |
| Arm 2600 mm - kg | 554 | |
| Bucket - kg | 601 | 0.80 $m^3$ |
| Arm 2200 mm - kg | 536 | |
| Arm 3100 mm - kg | 645 | |
| Two-piece boom - upper 3.82 m / lower 1.94 m - kg | 873 / 506 | |

# Working range





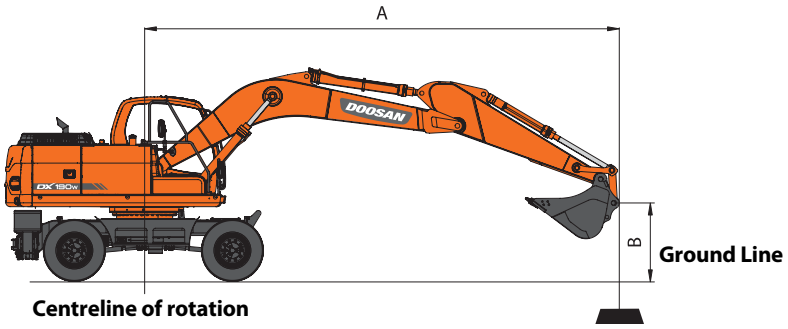

## ✱ Working range one-piece and two-piece boom

| Boom length - mm | | 5200 (one-piece boom) | | | 5440 (two-piece boom) | |
|---|---|---|---|---|---|---|
| Arm length - mm | | 2600 | 2200 | 3100 | 2300 | 2600 |
| A | Max. digging reach - mm | 9255 | 8875 | 9610 | 9340 | 9645 |
| B | Max. digging depth - mm | 5725 | 5320 | 6225 | 5610 | 5915 |
| C | Max. digging height - mm | 9440 | 9195 | 9380 | 10270 | 10510 |
| D | Max. dump height - mm | 6765 | 6520 | 6780 | 7460 | 7705 |
| E | Min. swing radius - mm | 3170 | 3035 | 3180 | 3110 | 3265 |

## ✱ Weight

| Boom (mm) | Arm (mm) | Bucket ($m^3$) | C/W (tonne) | Chassis - Front | Chassis - Rear | Weight total |
|---|---|---|---|---|---|---|
| 1-piece boom (5200) | 2600 | 0.8 | 3.6 | Cradle | Dozer | 18408 |
| | | 0.8 | 3.6 | Dozer | Stab | 19695 |
| | | 0.8 | 3.6 | Stab | Dozer | 19695 |
| | | 0.8 | 3.6 | Stab | Stab | 19979 |
| | 2200 | 0.93 | 3.6 | Cradle | Dozer | 18386 |
| | | 0.93 | 3.6 | Dozer | Stab | 19673 |
| | | 0.93 | 3.6 | Stab | Dozer | 19673 |
| | | 0.93 | 3.6 | Stab | Stab | 19957 |
| | 3100 | 0.57 | 3.6 | Cradle | Dozer | 18503 |
| | | 0.57 | 3.6 | Dozer | Stab | 19790 |
| | | 0.57 | 3.6 | Stab | Dozer | 19790 |
| | | 0.57 | 3.6 | Stab | Stab | 20074 |
| 2-piece boom (1940 + 3820) | 2600 | 0.76 | 3.6 | Cradle | Dozer | 18984 |
| | | 0.76 | 3.6 | Dozer | Stab | 20305 |
| | | 0.76 | 3.6 | Stab | Dozer | 20305 |
| | | 0.76 | 3.6 | Stab | Stab | 20555 |
| | 2300 | 0.8 | 3.6 | Cradle | Dozer | 18885 |
| | | 0.8 | 3.6 | Dozer | Stab | 20206 |
| | | 0.8 | 3.6 | Stab | Dozer | 20206 |
| | | 0.8 | 3.6 | Stab | Stab | 20456 |

# Lifting capacities




## Standard configuration – One-piece boom

**Boom: 5200 mm • Arm: 2600 mm • W/O Bucket • Counterweight: 3600 kg** **Units: 1000 kg**

| A (m) / B (m) | Chassis Frame Attachment | 1.5 | | 3.0 | | 4.5 | | 6.0 | | 7.5 | | Max. lift | | A (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.5 | F-Dozer + R-Stabilizer Down | | | | | | | | | | | 5.96 * | 5.96 * | 5.38 |
| | 4-Stabilizer Down | | | | | | | | | | | 5.96 * | 5.96 * | |
| 6.0 | F-Dozer + R-Stabilizer Down | | | | | | | 5.59 * | 5.24 | | | 5.69 * | 4.4 | 6.64 |
| | 4-Stabilizer Down | | | | | | | 5.59 * | 5.59 * | | | 5.69 * | 5.22 | |
| 4.5 | F-Dozer + R-Stabilizer Down | | | | | 6.76 * | 6.76 * | 5.93 * | 5.14 | | | 5.65 * | 3.67 | 7.38 |
| | 4-Stabilizer Down | | | | | 6.76 * | 6.76 * | 5.93 * | 5.93 * | | | 5.65 * | 4.35 | |
| 3.0 | F-Dozer + R-Stabilizer Down | | | | | 8.45 * | 7.69 | 6.63 * | 4.95 | 5.78 * | 3.52 | 5.70 * | 3.34 | 7.76 |
| | 4-Stabilizer Down | | | | | 8.45 * | 8.45 * | 6.63 * | 5.92 | 5.78 * | 4.19 | 5.70 * | 3.97 | |
| 1.5 | F-Dozer + R-Stabilizer Down | | | | | 9.96 * | 7.28 | 7.34 * | 4.77 | 6.02 * | 3.45 | 5.80 * | 3.24 | 7.83 |
| | 4-Stabilizer Down | | | | | 9.96 * | 8.91 | 7.35 * | 5.72 | 6.02 * | 4.11 | 5.80 * | 3.86 | |
| 0 (Ground) | F-Dozer + R-Stabilizer Down | | | 7.03 * | 7.03 * | 10.59 * | 7.06 | 7.73 * | 4.64 | 6.03 * | 3.4 | 5.92 * | 3.34 | 7.60 |
| | 4-Stabilizer Down | | | 7.03 * | 7.03 * | 10.59 * | 8.68 | 7.73 * | 5.59 | 6.03 * | 4.06 | 5.92 * | 3.99 | |
| -1.5 | F-Dozer + R-Stabilizer Down | 7.45 * | 7.45 * | 11.92 * | 11.92 * | 10.25 * | 7.01 | 7.52 * | 4.6 | | | 6.02 * | 3.72 | 7.03 |
| | 4-Stabilizer Down | 7.45 * | 7.45 * | 11.92 * | 11.92 * | 10.25 * | 8.63 | 7.52 * | 5.55 | | | 6.02 * | 4.45 | |
| -3.0 | F-Dozer + R-Stabilizer Down | | | 12.35 * | 12.35 * | 8.82 * | 7.11 | 6.05 * | 4.7 | | | 5.95 * | 4.66 | 6.04 |
| | 4-Stabilizer Down | | | 12.35 * | 12.35 * | 8.82 * | 8.73 | 6.06 * | 5.65 | | | 5.95 * | 5.6 | |

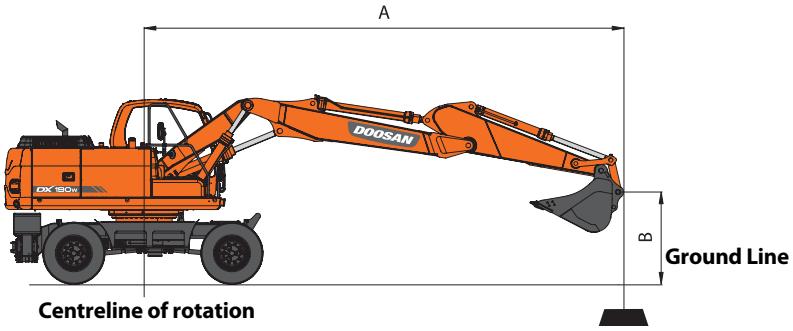
## Option 1 – One-piece boom

**Boom: 5200 mm • Arm: 3100 mm • W/O Bucket • Counterweight: 3600 kg** **Units: 1000 kg**

| A (m) / B (m) | Chassis Frame Attachment | 1.5 | | 3.0 | | 4.5 | | 6.0 | | 7.5 | | Max. lift | | A (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.5 | F-Dozer + R-Stabilizer Down | | | | | | | | | | | 5.27 * | 5.27 * | 5.89 |
| | 4-Stabilizer Down | | | | | | | | | | | 5.27 * | 5.27 * | |
| 6.0 | F-Dozer + R-Stabilizer Down | | | | | | | 5.03 * | 5.03 * | | | 5.15 * | 4.02 | 7.06 |
| | 4-Stabilizer Down | | | | | | | 5.03 * | 5.03 * | | | 5.15 * | 4.76 | |
| 4.5 | F-Dozer + R-Stabilizer Down | | | | | | | 5.45 * | 5.19 | 5.18 * | 3.61 | 5.18 * | 3.4 | 7.76 |
| | 4-Stabilizer Down | | | | | | | 5.45 * | 5.45 * | 5.18 * | 4.28 | 5.18 * | 4.04 | |
| 3.0 | F-Dozer + R-Stabilizer Down | | | 11.74 * | 11.74 * | 7.75 * | 7.75 * | 6.22 * | 4.98 | 5.46 * | 3.53 | 5.29 * | 3.11 | 8.12 |
| | 4-Stabilizer Down | | | 11.74 * | 11.74 * | 7.75 * | 7.75 * | 6.22 * | 5.95 | 5.46 * | 4.2 | 5.29 * | 3.7 | |
| 1.5 | F-Dozer + R-Stabilizer Down | | | | | 9.45 * | 7.33 | 7.03 * | 4.77 | 5.82 * | 3.43 | 5.43 * | 3.01 | 8.18 |
| | 4-Stabilizer Down | | | | | 9.45 * | 8.97 | 7.03 * | 5.73 | 5.82 * | 4.1 | 5.43 * | 3.59 | |
| 0 (Ground) | F-Dozer + R-Stabilizer Down | | | 8.33 * | 8.33 * | 10.40 * | 7.04 | 7.58 * | 4.61 | 6.01 * | 3.36 | 5.61 * | 3.09 | 7.96 |
| | 4-Stabilizer Down | | | 8.33 * | 8.33 * | 10.40 * | 8.65 | 7.58 * | 5.56 | 6.01 * | 4.02 | 5.61 * | 3.69 | |
| -1.5 | F-Dozer + R-Stabilizer Down | 7.38 * | 7.38 * | 11.84 * | 11.84 * | 10.39 * | 6.93 | 7.60 * | 4.54 | | | 5.80 * | 3.38 | 7.43 |
| | 4-Stabilizer Down | 7.38 * | 7.38 * | 11.84 * | 11.84 * | 10.39 * | 8.55 | 7.60 * | 5.49 | | | 5.80 * | 4.06 | |
| -3.0 | F-Dozer + R-Stabilizer Down | 11.39 * | 11.39 * | 13.51 * | 13.51 * | 9.38 * | 6.98 | 6.76 * | 4.58 | | | 5.94 * | 4.12 | 6.50 |
| | 4-Stabilizer Down | 11.39 * | 11.39 * | 13.51 * | 13.51 * | 9.38 * | 8.6 | 6.76 * | 5.53 | | | 5.94 * | 4.95 | |
| -4.5 | F-Dozer + R-Stabilizer Down | | | 9.63 * | 9.63 * | 6.66 * | 6.66 * | | | | | 5.74 * | 5.74 * | 4.96 |
| | 4-Stabilizer Down | | | 9.63 * | 9.63 * | 6.66 * | 6.66 * | | | | | 5.74 * | 5.74 * | |

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. Weight of all lifting accessories must be deducted from or added to the above lifting capacities.
6. The configurations indicated do not necessarily reflect the standard equipment of the machine.

: Rating over front
: Rating over side or 360°
(free on wheel / dozer and stabilizer on ground)



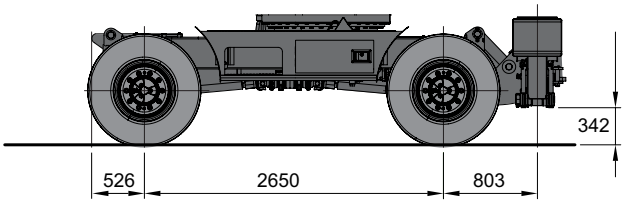

## Option 2 – Two-piece boom

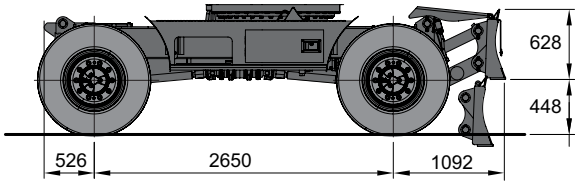
**Boom: 5440 mm • Arm: 2600 mm • W/O Bucket • Counterweight: 3600 kg**

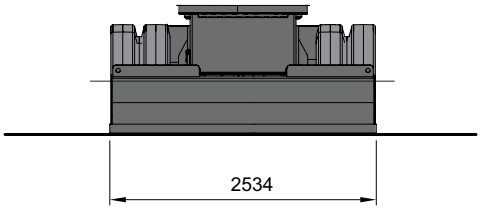
**Units: 1000 kg**

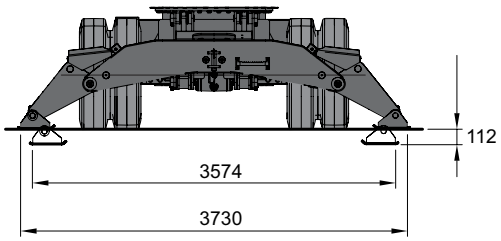
| A (m) / B (m) | Chassis Frame Attachment | 3.0 | | 4.5 | | 6.0 | | 7.5 | | Max. lift | | A (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| 9.0 | R-Dozer Up | | | | | | | | | 6.05 * | 6.05 * | 3.91 |
| | R-Dozer Down | | | | | | | | | 6.05 * | 6.05 * | |
| | F-Dozer + R-Stabilizer Down | | | | | | | | | 6.05 * | 6.05 * | |
| | 4-Stabilizer Down | | | | | | | | | 6.05 * | 6.05 * | |
| 7.5 | R-Dozer Up | | | | | | | | | 5.2 | 3.19 | 5.94 |
| | R-Dozer Down | | | | | | | | | 5.22 * | 3.52 | |
| | F-Dozer + R-Stabilizer Down | | | | | | | | | 5.22 * | 5.22 * | |
| | 4-Stabilizer Down | | | | | | | | | 5.22 * | 5.22 * | |
| 6.0 | R-Dozer Up | | | | | 4.77 * | 3.22 | | | 3.86 | 2.34 | 7.10 |
| | R-Dozer Down | | | | | 4.77 * | 3.55 | | | 5.05 * | 2.59 | |
| | F-Dozer + R-Stabilizer Down | | | | | 4.77 * | 4.77 * | | | 5.05 * | 3.91 | |
| | 4-Stabilizer Down | | | | | 4.77 * | 4.77 * | | | 5.05 * | 4.65 | |
| 4.5 | R-Dozer Up | 7.81 * | 7.81 * | 5.95 * | 4.85 | 5.07 | 3.1 | 3.52 | 2.11 | 3.28 | 1.95 | 7.80 |
| | R-Dozer Down | 7.81 * | 7.81 * | 5.95 * | 5.36 | 5.20 * | 3.42 | 4.97 * | 2.35 | 4.82 | 2.17 | |
| | F-Dozer + R-Stabilizer Down | 7.81 * | 7.81 * | 5.95 * | 5.95 * | 5.20 * | 5.12 | 4.97 * | 3.56 | 5.06 * | 3.32 | |
| | 4-Stabilizer Down | 7.81 * | 7.81 * | 5.95 * | 5.95 * | 5.20 * | 5.20 * | 4.97 * | 4.25 | 5.06 * | 3.96 | |
| 3.0 | R-Dozer Up | | | 7.53 | 4.39 | 4.85 | 2.9 | 3.44 | 2.05 | 3 | 1.76 | 8.15 |
| | R-Dozer Down | | | 7.68 * | 4.88 | 5.97 * | 3.22 | 5.1 | 2.28 | 4.43 | 1.97 | |
| | F-Dozer + R-Stabilizer Down | | | 7.68 * | 7.6 | 5.97 * | 4.9 | 5.23 * | 3.49 | 5.16 * | 3.04 | |
| | 4-Stabilizer Down | | | 7.68 * | 7.68 * | 5.97 * | 5.89 | 5.23 * | 4.17 | 5.16 * | 3.64 | |
| 1.5 | R-Dozer Up | | | 7.07 | 3.99 | 4.64 | 2.71 | 3.35 | 1.96 | 2.92 | 1.7 | 8.22 |
| | R-Dozer Down | | | 9.30 * | 4.47 | 6.78 * | 3.02 | 4.99 | 2.19 | 4.33 | 1.9 | |
| | F-Dozer + R-Stabilizer Down | | | 9.30 * | 7.14 | 6.78 * | 4.69 | 5.61 * | 3.39 | 5.31 * | 2.96 | |
| | 4-Stabilizer Down | | | 9.30 * | 8.8 | 6.78 * | 5.66 | 5.61 * | 4.07 | 5.31 * | 3.55 | |
| 0 (Ground) | R-Dozer Up | | | 6.85 | 3.8 | 4.5 | 2.58 | 3.29 | 1.9 | 3.02 | 1.75 | 8.00 |
| | R-Dozer Down | | | 10.17 * | 4.28 | 6.95 | 2.89 | 4.93 | 2.13 | 4.49 | 1.96 | |
| | F-Dozer + R-Stabilizer Down | | | 10.17 * | 6.92 | 7.36 * | 4.55 | 5.89 * | 3.33 | 5.50 * | 3.06 | |
| | 4-Stabilizer Down | | | 10.17 * | 8.56 | 7.36 * | 5.52 | 5.89 * | 4.01 | 5.50 * | 3.67 | |
| -1.5 | R-Dozer Up | 9.23 * | 6.94 | 6.82 | 3.77 | 4.46 | 2.55 | | | 3.34 | 1.94 | 7.47 |
| | R-Dozer Down | 9.23 * | 7.94 | 10.25 * | 4.25 | 6.91 | 2.86 | | | 4.99 | 2.17 | |
| | F-Dozer + R-Stabilizer Down | 9.23 * | 9.23 * | 10.25 * | 6.89 | 7.51 * | 4.52 | | | 5.68 * | 3.38 | |
| | 4-Stabilizer Down | 9.23 * | 9.23 * | 10.25 * | 8.53 | 7.51 * | 5.48 | | | 5.68 * | 4.06 | |
| -3.0 | R-Dozer Up | | | 6.93 | 3.87 | | | | | 4.7 | 2.71 | 5.86 |
| | R-Dozer Down | | | 9.47 * | 4.35 | | | | | 7.08 * | 3.03 | |
| | F-Dozer + R-Stabilizer Down | | | 9.47 * | 7 | | | | | 7.08 * | 4.76 | |
| | 4-Stabilizer Down | | | 9.47 * | 8.65 | | | | | 7.08 * | 5.77 | |

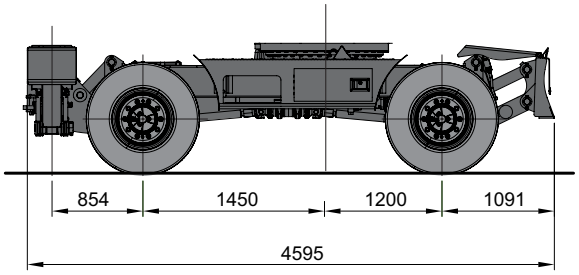
# Undercarriage

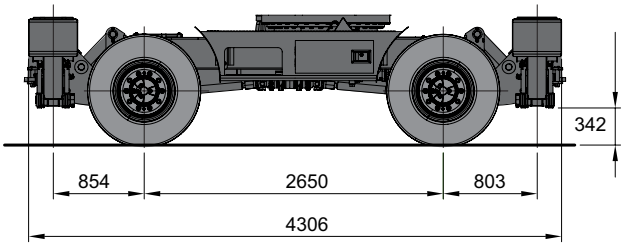


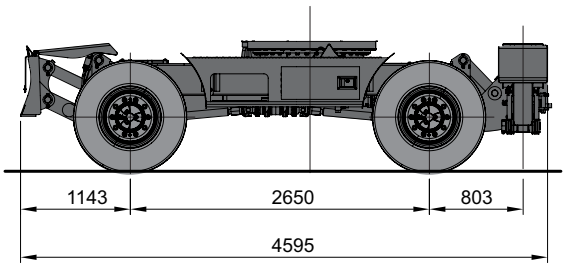




# Standard and optional equipment



## Standard equipment

| |
|---|
| **Engine** |
| DOOSAN DL06KB turbocharged, Common Rail direct injection, EU Stage IIIB compliant Diesel engine combined with e-EPOS System |
| Automatic engine warm-up system |
| Fuel pre-filter with water separator sensor |
| Diesel particulate filter (DPF) |
| Fuel and Engine speed (RPM) control dial |
| Auto-idle |
| **Hydraulic system** |
| Boom and arm flow regeneration |
| Swing anti-rebound valves |
| Spare ports (valve) |
| Breaker piping |
| Cylinder cushioning & anti-contamination seals |
| Control of auxiliary hydraulic flow and pressure from the display panel |
| **Cab & Interior** |
| Roll Over Protective Structure (ROPS) |
| Pressurised, sound-insulated and CabSus mounted cab |
| Heated, adjustable air suspension seat with adjustable headrest and armrest |
| Jog shuttle switch |
| Air conditioning with climate control |
| 3 speed (high, low, creep) with cruise control |
| One-touch power boost |
| Attachment management system |
| Pull-up type front window with sun roller blind and removable lower front window |
| Ceiling light |
| Intermittent upper windshield wiper |
| Multiple storage compartments (e.g. document holder under seat) and coat hook |
| Rain visor |
| Flat, spacious, easy-to-clean floor |
| Cigarette lighter and ashtray |
| Cup holder and magazine rack |
| Anti-theft protection (control panel password) |
| Hot and cool box |
| 7" (18 cm) LCD colour monitor panel with digital speed display |
| Automatic rear window defroster |
| 4 operating modes & 4 working modes |
| Adjustable tiltable steering column |
| Radio-ready and remote radio On/Off switch |
| 12 V spare power socket |
| Serial communication port for laptop PC interface |
| Adjustable PPC wrist control levers for arm, boom, bucket and swing, with sliding proportional control for attachments, FNR switch and auxiliary hydraulic buttons |
| USB port |
| DPF regeneration switch |
| Sliding left front and rear windows with lock |
| Travel pedals |
| Master key |
| **Safety** |
| Boom, arm, dozer blade and stabilizer cylinder safety valves |
| Overload warning device |
| Large handrails and step |
| Rotating beacon |
| Rear view camera |
| Punched metal anti-slip plates |
| Hydraulic safety lock lever |
| Safety glass |
| Hammer for emergency escape |
| Right and left rearview mirrors |
| Emergency engine stop and hydraulic pump control switches |
| Auxiliary travel selector switch |
| Reinforced cast steel pivot points |
| Mirror on counterweight |
| Halogen work lights (2 front frame, 4 front cab-mounted, 2 rear cab-mounted, 2 boom-mounted and 1 rear side) |
| Street lights with LED stop lamps + LED blinker with side reflex reflectors |
| Reverse travel alarm (with On/Off switch) |
| Parking brake and cab swing lock pin |
| Engine overheat and restart prevention system |
| **Other** |
| One-piece boom 5200 mm – arm: 2600 mm |
| Counterweight 3600 kg |
| Powershift transmission |
| Auto shut-off fuel filler pump |
| Double element air cleaner |
| Dust screen for radiator/oil cooler |
| Separated engine hoods with gas spring. DPF hood screwed & protected |
| Upperstructure maintenance compartment doors and fuel cap lockable |
| Self-diagnostic function |
| Battery (12 V x 2, 150 Ah) with cut-off switch and alternator (24 V, 80 A) |
| Electric horn |
| Toolkit and spare parts for first service |
| Remote greasing for swing circle and workgroup pivot points |
| Guards for boom lights |
| **Undercarriage** |
| Front parallel dozer blade and rear independent stabilizers |
| Double tyres 10-20 14 PR |
| 3 front axle oscillation lock modes (On/Off/Auto) |
| Piston rod protection of stabilizer cylinders |
| Lockable tool box (left side) |
| Rear & front chain tightening eyes |

## Optional equipment

| |
|---|
| **Cab & Interior** |
| MP3/USB radio or MP3/USB radio with CD player |
| **Safety** |
| FOGS cab - top and front cab guards (ISO 10262) |
| Side view camera |
| 2 Lateral safety bars (ISO 2867:2011) |
| Alarm for travel & swing |
| Alarm for travel |
| Microphone |
| **Other** |
| Hydraulic piping for crusher, quick coupler, clamshell, tilting and rotating buckets |
| Additional filter for breaker piping |
| One-piece boom arms: 2200 mm or 3100 mm |
| Two-piece boom arms: 2300 mm or 2600 mm |
| Doosan buckets: full range of GP, HD & Rock buckets |
| Doosan breakers and Doosan quick-couplers |
| Upper guard for front window |
| Lower guard for front window |
| Floating boom function |
| Wiper for lower front window |
| Double pump flow |
| Telescopic rotating beacon |
| Bio oil |
| Automatic lubrication system |
| Homologation preparation (depending on countries) |
| **Undercarriage** |
| Lockable tool box (right side) |
| Front cradle |
| 2 or 4 independent stabilizers with cylinder protection |
| Rear parallel dozer blade |

**Microphone**
For extra safety on crowded worksites.

**2 additional lateral safety bars**
With raised height for increased safety.

**Tool box**
Lockable tool box on the right hand side.

**Doosan buckets**
A range of dependable Doosan buckets is available to cover several applications.

**Doosan breakers and quick-couplers**
Doosan provides the tough, reliable equipment you need for demolition work.

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.

## Doosan Infracore Construction Equipment

**Finance your ambitions**


100% GENUINE PARTS Totally Doosan

**www.doosanequipment.eu**

Doosan Infracore Financial Services (DI FS) is specialised in creating financing solutions to meet a wide variety of needs.
Contact your local dealer for more information.

Our well-developed dealer network has the knowledge and experience to take the best care of our Doosan customers. No matter where you are, you'll get the service you expect - and can rely on!

- Complete parts & service support for all Doosan products
- Highest quality genuine parts
- Large, dedicated staff of factory-trained aftermarket professionals in the field

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

FSC Mixed Sources