

## > We are DEVELON

We trace our roots to 1937 as one of Korea's first large scale machine plant. Throughout time we have consistently delivered exceptional products and solutions.

DEVELON is a bold name that reflects our core ambition to continue developing onwards and leaving behind a positive footprint in our world. Moving forward, we seek to be part of our customers and partners' endeavor to build a better world.

Powered by **Innovation**



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[develon-ce.com](https://develon-ce.com)

# DEVELON

Excavator

## DX360LCA-7B





# THE WINNING PLAYER IN GENERAL WORK

**DX360LCA-7B was specially designed for mining and large-scale civil works. The performance of the Develon engine ensures optimized capacity and maximum profitability.**



Photos may include optional equipment



## ENGINE

The DX12 series engine delivers high work reliability and fuel efficiency. It has the advantages of easy maintenance and low operating cost.

## REINFORCED CHASSIS STRUCTURE

The optimized design of the chassis structure has improved the overall work stability and durability of the lower part. The chassis that becomes longer using 9 lower rollers effectively helps in loading work.

## FULLY AUTOMATIC FUEL HEATING

Fuel heating is designed to be fully automatic and is automatically started in cold areas.

## LIGHTING SAFETY

Enhanced lighting system helps to improve visibility for night work. The lamps are mounted in 9 places including 7 in the front and 2 in the rear.

## CAB GUARDRAIL

Cab guardrail has been equipped to improve safety in harsh environments.

## SEPARATION OF WATER BOX AND OIL COOLING

A variable-speed independent cooling system controlled by hydraulic pressure is adopted to monitor the temperature in real time.



# FUEL EFFICIENCY

## VBO (VIRTUAL BLEED OFF) SYSTEM

VBO system is DEVELON's own hydraulic system based on "DEVELON electronic controlled pump". Generally, most excavators use hydraulic system, transferring the energy by using hydraulic flow. In order to facilitate the rapid response to the joystick signal, this hydraulic flow is continuously generated from the pump even when the excavator is not in operation. The weakness of this system is the fuel loss and internal abrasion. On the contrary, VBO system 'virtually' generates the hydraulic flow through the electronic sensor. Due to its means, customer can be benefited from VBO system in every way. Not to mention the fuel efficiency and the safe sustenance of the system, but also immediate response and familiar controllability, the strength of existing hydraulic system.

## SPC (SMART POWER CONTROL) SYSTEM

SPC is a predictive powertrain control system, which automatically identifies working mode and adjusts engine RPM to supply proper pump torque. To Reduce the unnecessary waste of fuel consumption, it analyzes and manages gear steps and the set the speed. SPC relieves the driver's workload and contributes to a fuel-efficient working style.

## EPOS™ (ELECTRONIC POWER OPTIMIZING) SYSTEM

The smart EPOS™ provides a perfectly synchronized communication link between the engine's 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, to ensure power is delivered exactly as needed.





# FEATURES



1

## 1. EXCELLENT WORK PERFORMANCE

The design for harsh construction sites such as mines and the latest engine equipped with strong power ensure excellent work performance.



2

## 2. REINFORCED BOOM AND ARM

Strength and durability have been remarkably improved by adopting an integrated structure and a thicker boom plate. The arm plate has been made thicker, and the durability of the arm has been significantly improved using the stiffener and wear-resistant stiffener.



3

## 3. EXCELLENT WORK STABILITY

The wide gauge and long crawler provide excellent work stability in slopes, strong lateral lifting force during heavy-duty work by distributing weight reasonably.



4

## 4. ADVANCED ELECTRONIC CONTROL VBO (VIRTUAL BLEED OFF) HYDRAULIC PUMP

The operation response is increased by mounting the large-capacity, electrically controlled VBO hydraulic main pump. The VBO system realizes the effect of high efficiency and low fuel consumption.



5

## 5. MORE POWERFUL DRIVING FORCE

The chassis and driving device support powerful driving performance, making it possible to work on rough terrain.

# COMFORT



## IMPROVED VISIBILITY

The operator can perform all works easily in 360 degrees by increasing the glass area of the cab. In particular, the operator can check the obstacles below through the integrated large right-side glass.

- 1 The operator can adjust the air suspension seat forward and backward and seat support capacity according to the operator's weight. The comfort of the seat is increased using hot wire function, considering operation in winter.
- 2 Increases customer's convenience as equipment operation information can be easily obtained using the hi-tech color LCD monitor system.



2

3

1



Concentrated switch design



Bluetooth player

Convenient storage space and power supply



# RELIABILITY



## CYLINDER

Maintenance costs are reduced by increasing the cylinder durability of the front work. It secures long-term and continuous work capability.



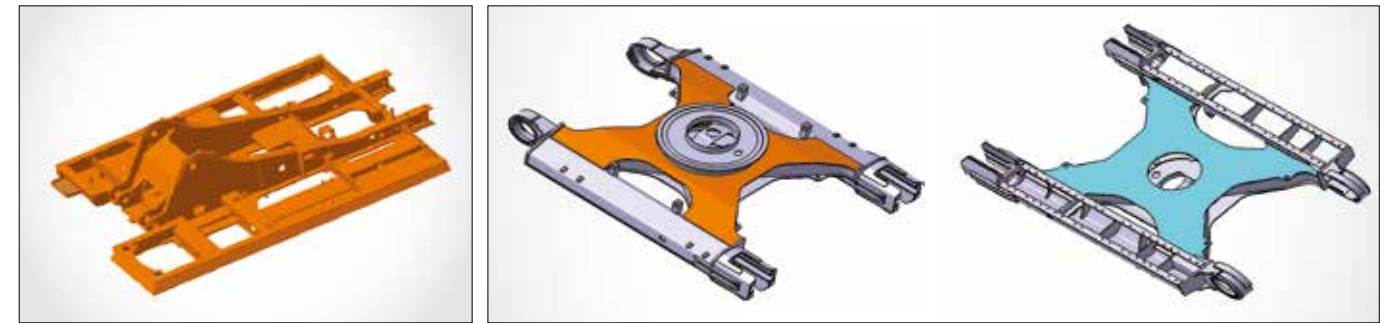
## WORK RELIABILITY

In case of equipment stopping due to high temperature, the reliability of the hydraulic system is improved by adjusting the cooling efficiency in real time according to the working situation.



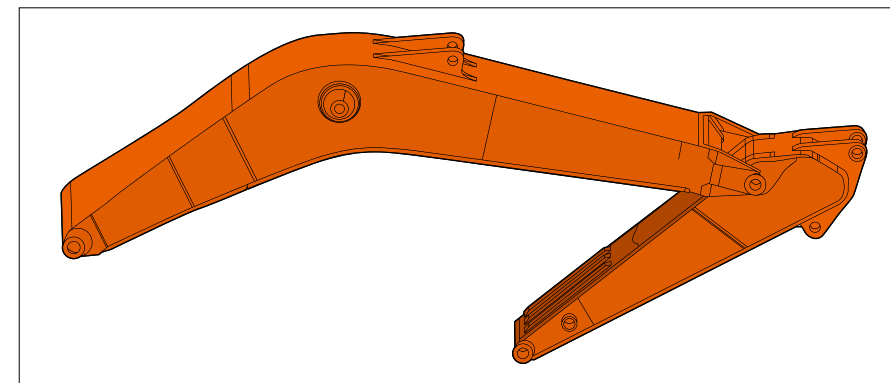
## NEWLY DESIGNED HIGH-STRENGTH, HIGHLY WEAR-RESISTANT, MINING-TYPE BUCKET

The new bucket designed in consideration of extreme working conditions has significantly improved strength, wear resistance and service life. Highly wear-resistant steel sheet was applied to parts that can be easily abraded. At the same time, the side teeth, bucket teeth and lip plate guard were designed to suit the mining operation.



## REINFORCED STRUCTURE

The cracking problem caused by poor welding has been solved with the integrated design of the chassis, upper plate, lower plate, and connecting rod. The cross section is increased, the materials are adjusted, the plate is made thicker and the service life is extended.



## REINFORCED BOOM & ARM

Strength and durability have been remarkably improved by adopting an integrated structure and a thicker boom plate. The arm plate has been made thicker, and the durability of the arm has been significantly improved using the stiffener and wear-resistant stiffener.

The adaptability to harsh dust work conditions has been improved by increasing the lubrication point of the arm connection unit.

## WEAR-RESISTANT BUSHING





# EASY MAINTENANCE



## GROUND LEVEL MAINTENANCE

It can be maintained more easily thanks to the position of the oil filter.

## LIGHTWEIGHT ENGINE COVER

The engine cover designed to be opened by phase provides safety and excellent convenience.



## LOADING HANDLE FOR SAFETY

The integrated molding-type lift handle provides strong vibration resistance and good quality. The standing area is increased, and safety is improved by using a high-strength steel plate with black flower patterns for the maintenance stand.



## OIL TANK COVER

Fuel loss can be effectively prevented with the double locking design.



## FIREWALL INSTALLED BETWEEN THE ENGINE AND PUMP



## THE REPLACEMENT CYCLE

Hydraulic oil : 2,000 hours  
Engine oil filter : 500 hours  
Engine oil : 500 hours



# MY DEVELON

## Telematics Service (OPTIONAL)

**TELECOMMUNICATIONS** Data flow from machine to web



### TELEMATICS TERMINAL

The terminal device is installed and connected to a machine to get machine data.

### TELECOMMUNICATION

DEVELON provides Dual mode (Cellular, Satellite) communication to maximize communication coverage

### MY DEVELON

Users can monitor the machine status from DEVELON Website & Mobile App

**TELEMATICS SERVICE BENEFITS** DEVELON and dealer support customers to improve work efficiency with timely and responsive services

#### CUSTOMER

Improve work efficiency

- Timely and preventive service
- Improve operator's skills by comparing work pattern
- Manage fleet more effectively

#### DEALER

Better service for customers

- Provide better quality of service
- Maintain machine value
- Better understanding of market needs

#### DEVELON

Responsive to customer's voice

- Utilize quality-related field data
- Apply customer's usage profile to developing new machine

**MAIN FUNCTIONS (WEB/APP)** DEVELON Telematics Service provides various functions to support your great performance



#### OPERATION

You can easily access and manage equipment information and maintenance costs on the platform anytime, anywhere. Retrieve details such as location, uptime, utilization, and fuel costs based on field data, enabling efficient work planning by considering the progress at the job site.



#### HEALTH

Based on reliable manufacturer information, you can have checklists for each usage cycle and receive replacement cycle reminders for consumable parts. In the event of equipment defects, you will receive notifications and can request service immediately. This ensures swift service support from certified DEVELON dealers and minimizes machine idle time.



#### E-COMMERCE

You can purchase a variety of digital products and certified genuine parts for your equipment online. Elevate your experience by subscribing to our exclusive digital services.



#### LIBRARY

Saving your time to find all the documents about your equipment. We provide monthly operation reports, manuals, parts books and more. This helps you to access to a wide range of information and knowledge of your equipment.

# GLOBAL PARTS NETWORK

## QUALITY-PROVEN MAIN COMPONENTS

Develon provides fast and precise worldwide delivery of genuine Develon parts through its global PDC (parts distribution center) network.

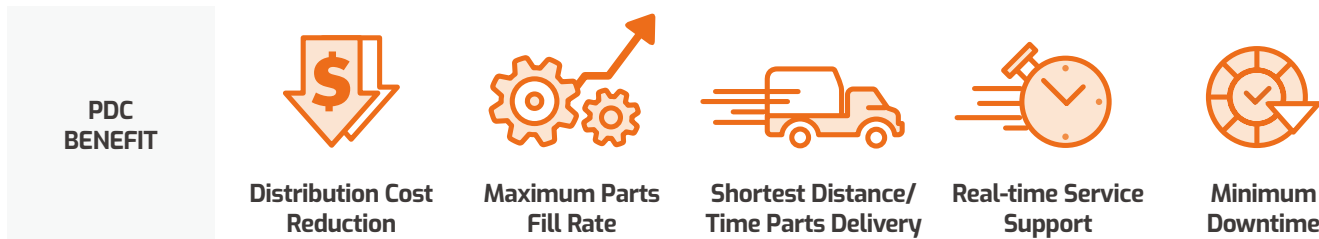


### GLOBAL NETWORK

The global network of the GPDC (Global Parts Distribution Center) maximizes its fill rate by making sure that each center is stockpiled with all the critical parts required for businesses in its area. The network also minimizes the time and costs required for parts delivery by positioning PDCs close to major markets around the world. Develon PDCs communicate with customers in their time zone, informing them that they are open for operation, and deliver parts to them as early as possible.

## THE GLOBAL PARTS DISTRIBUTION CENTER NETWORK

PDCs had been set up as shown below, including Mother PDC in Ansan, Korea. The ten other PDCs include one in China (Yantai), three in USA (Atlanta, Seattle and Miami), two in Europe (Germany and the UK), one in the Middle East (Dubai), two in Asia (Singapore and Indonesia) and one in Brazil (São Paulo).



# TECHNICAL SPECIFICATION

| ITEMS                   |        | UNIT    | OPT.1                     | OPT.2                    | OPT.3                    |
|-------------------------|--------|---------|---------------------------|--------------------------|--------------------------|
| Operating Weight        |        | ton     | 36                        | 35.9                     | 36.5                     |
| Boom                    |        | mm      | 6,245 HD                  | 6,500 HD                 | 6,500 HD                 |
| Arm                     |        | mm      | 2.6 HD                    | 2.9 HD                   | 3.2 HD                   |
| Bucket Capacity (SAE)   |        | m³      | 2.32 H class              | 2.32 H class             | 1.94 S class             |
| System Pressure         |        | kg/cm²  | 370                       |                          |                          |
| Swing Speed             |        | rpm     | 8.2                       |                          |                          |
| Travel Speed (High/Low) |        | km/h    | 5.0 / 3.0                 |                          |                          |
| Gradeability            |        | % (deg) | 70 (35)                   |                          |                          |
| Ground Pressure         |        | kg/cm²  | 0.682                     | 0.68                     | 0.692                    |
| DIGGING FORCE(SAE)      | BUCKET | ton     | [SAE] 22.1<br>[ISO] 24.4  | [SAE] 20.7<br>[ISO] 24.4 | [SAE] 20.7<br>[ISO] 24.4 |
|                         | ARM    | ton     | [SAE] 22.85<br>[ISO] 23.4 | [SAE] 19.6<br>[ISO] 20.5 | [SAE] 17.9<br>[ISO] 19.0 |

| Engine           |  |
|------------------|--|
| Model            | DEVELON DX12   |
| Rated power      | 238 kW (319 HP, 324 PS) @ 1,800 rpm (GROSS)<br>233 kW (312 HP, 316 PS) @ 1,800 rpm (NET) |
| Max. torque      | 142 kgf.m @ 1,200 rpm  |
| Fuel Consumption | 214 g/kW.hr @ RATED SPEED  |
| Displacement     | 11,051 cc  |

| Swing System          |                         |
|-----------------------|-------------------------|
| Driving method        | Hydraulic drive         |
| Reduction engine      | Planetary gear reducing |
| Swing operation brake | Wet multi-brake         |

| Drive and Brakes |  |
|------------------|--|
| Steering control | Pedal and control lever integrated control |
| Driving method   | Hydraulic drive                            |
| Travel motor     | Axial plunger motor                        |
| Brake operation  | Hydraulic brake                            |
| Parking brake    | Wet multi-brake                            |

| Hydraulic System |                       |
|------------------|-----------------------|
| Travel motor     | Axial plunger type X2 |
| Swing motor      | Wet multi-brake       |

| Main pump      |                                     |
|----------------|-------------------------------------|
| Displacement   | 194 cc/rev                          |
| Max. flow rate | 2 - 350 Liter/min@100 bar, 1800 rpm |

| Safety valve set value                |                        |
|---------------------------------------|------------------------|
| Hydraulic circuit of the working unit | 350 kgf/cm2 (34.3 Mpa) |
| Hydraulic travel circuit              | 350 kgf/cm2 (34.3 Mpa) |
| Hydraulic rotary circuit              | 300 kgf/cm2 (29.4 Mpa) |

| Fuel tank volume   |       |
|--------------------|-------|
| Fuel tank          | 610 L |
| Hydraulic oil tank | 420 L |

| Cooling liquid/lubricant volume (replacement) |       |
|---|-------|
| Cooler  | 45 L  |
| Engine  | 36 L  |
| Driving reduction gear oil                    | 2X7 L |
| Turning decelerator                           | 8 L   |

| Oil cylinder |                              |
|--------------|------------------------------|
| Boom         | 2-150 mm x 100 mm x 1,450 mm |
| Arm          | 1-170 mm x 120 mm x 1,805 mm |
| Bucket       | 1-145 mm x 95 mm x 1,300 mm  |

## BUCKET DIGGING FORCE

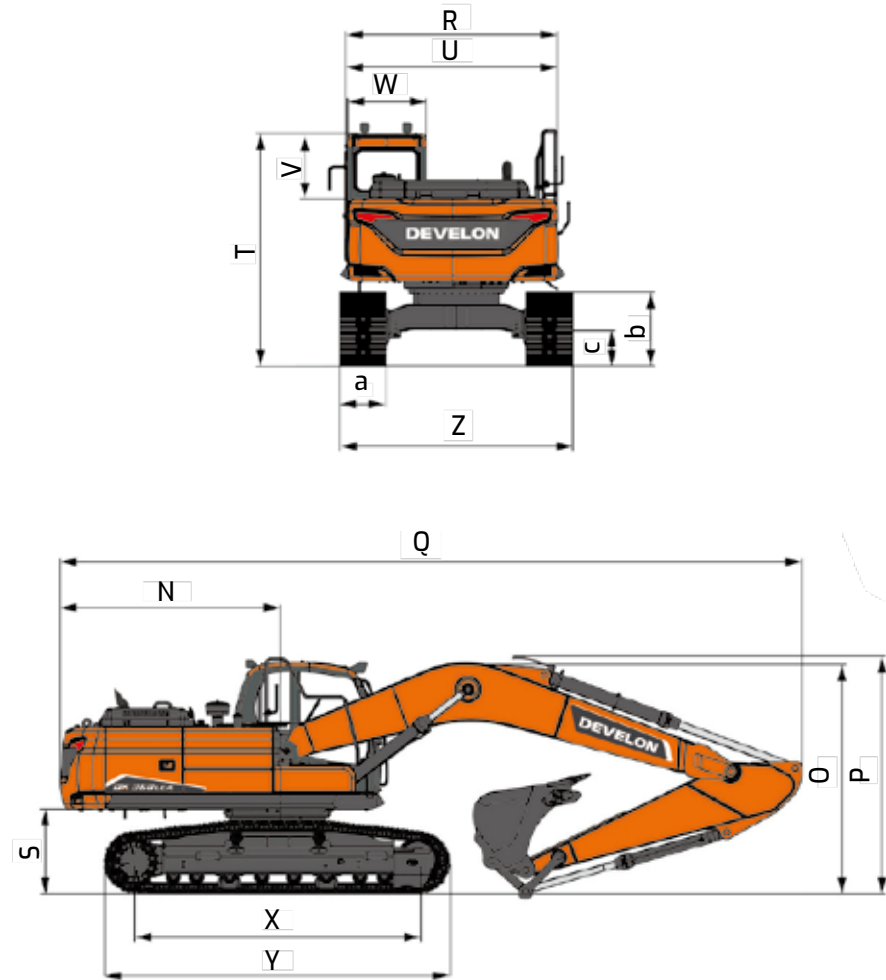
|             | CAPACITY (m³) |      | BUCKET WIDTH (mm) |            | DIGGINGFORCE (NOM./PRESS.UP, ton)  |
|-------------|---------------|------|-------------------|------------|------------------------------------|
|             | CECE          | SAE  | W/CUTTER          | W/O CUTTER |                                    |
| OPT. BUCKET | 1.51          | 1.71 | 1645              | 1645       | [SAE] 19.6/20.7<br>[ISO] 23.1/24.4 |
| OPT. BUCKET | 1.74          | 1.95 | 1567              | 1611       |                                    |
| OPT. BUCKET | 1.71          | 1.94 | -                 | 1602       | SAE] 21.7/22.9 [ISO] 24.7/26.1     |
| OPT. BUCKET | 1.8           | 2.03 | 1684              | 1680       | [SAE] 22.3/23.6<br>[ISO] 24.7/26.1 |
| OPT. BUCKET | 2.05          | 2.32 | 1892              | 1858       |                                    |

## BUCKET COMBINATION

| Bucket Type | CAPACITY (m³) | Bucket Width (mm) |           | Weight (kg) | 6.5 Boom | 6.245 Boom | 6.5 Boom |
|-------------|---------------|-------------------|-----------|-------------|----------|------------|----------|
|             | SAE           | W/CUTTER          | WO/CUTTER |             | 2.9 Arm  | 2.6 Arm    | 3.2 Arm  |
|             | 1.71          | 1645              | 1645      | 1803.2      | A        | A          | B        |
|             | 1.95          | 1771              | 1771      | 1890.3      | B        | A          | C        |
|             | 1.94          | -                 | 1602      | 2094        | B        | A          | C        |
|             | 2.03          | 1684              | 1650      | 1820        | B        | A          | C        |
|             | 2.32          | 1892              | 1858      | 1817        | C        | B          | C        |

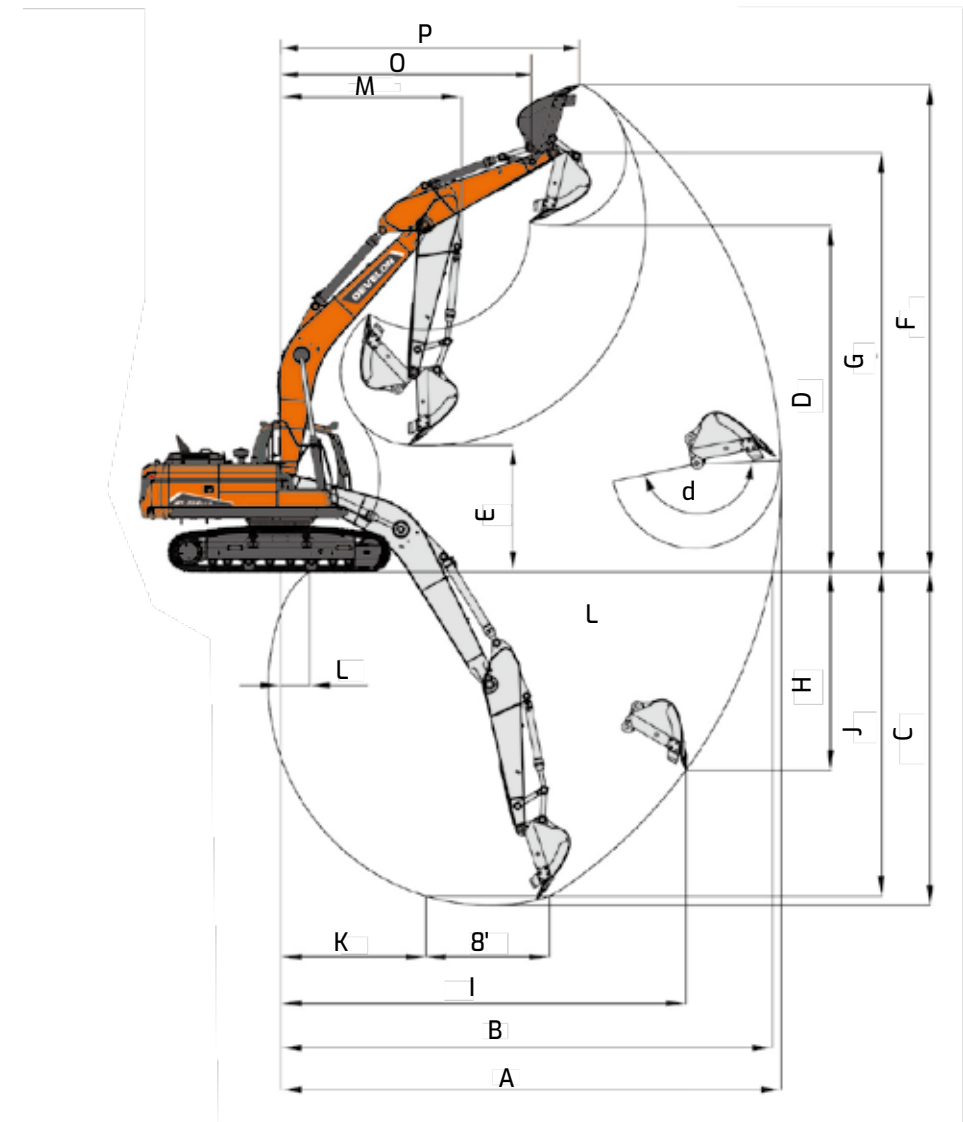


# DIMENSIONS



| ITEMS                 |  | UNIT           |   | OPT.1  | OPT.2  | OPT.3  |
|-----------------------|--|----------------|---|--------|--------|--------|
| BOOM TYPE (ONE PIECE) |  | mm             |   | 6,245  | 6,500  | 6,500  |
| ARM TYPE              |  | mm             |   | 2,600  | 2,900  | 3,200  |
| BUCKET TYPE (SAE)     |  | m <sup>3</sup> |   | 2.32   | 2.32   | 1.94   |
| Dimension             | TAIL SWING RADIUS                      | mm             | N | 3,530  | 3,530  | 3,530  |
|                       | SHIPPING HEIGHT (BOOM)                 | mm             | O | 3,605  | 3,490  | 3,360  |
|                       | SHIPPING HEIGHT (HOSE)                 | mm             | P | 3,705  | 3,560  | 3,445  |
|                       | SHIPPING LENGTH                        | mm             | Q | 11,105 | 11,296 | 11,320 |
|                       | SHIPPING WIDTH                         | mm             | R | 3,280  | 3,280  | 3,280  |
|                       | COUNTER WEIGHT CLEARANCE (w/o grouser) | mm             | S | 1,180  | 1,180  | 1,180  |
|                       | HEIGHT OVER CAB.                       | mm             | T | 3,100  | 3,100  | 3,100  |
|                       | HOUSE WIDTH                            | mm             | U | 3,155  | 3,155  | 3,155  |
|                       | CAB. HEIGHT ABOVE HOUSE                | mm             | V | 853    | 853    | 853    |
|                       | CAB. WIDTH                             | mm             | W | 1,010  | 1,010  | 1,010  |
|                       | TUMBLER DISTANCE                       | mm             | X | 4,040  | 4,040  | 4,040  |
|                       | TRACK LENGTH                           | mm             | Y | 4,940  | 4,940  | 4,940  |
|                       | UNDERCARRIAGE WIDTH (STD.)             | mm             | Z | 3,280  | 3,280  | 3,280  |
|                       | SHOE WIDTH                             | mm             | a | 600    | 600    | 600    |
|                       | TRACK HEIGHT (w/o grouser)             | mm             | b | 970    | 970    | 970    |
|                       | CAR BODY CLEARANCE (w/o grouser)       | mm             | c | 480    | 480    | 480    |

# WORKING RANGE



| ITEMS                 |                               | UNIT           |   | OPT.1  | OPT.2  | OPT.3  |
|-----------------------|-------------------------------|----------------|---|--------|--------|--------|
| BOOM TYPE (ONE PIECE) |                               | mm             |   | 6,245  | 6,500  | 6,500  |
| ARM TYPE              |                               | mm             |   | 2,600  | 2,900  | 3,200  |
| BUCKET TYPE (SAE)     |                               | m <sup>3</sup> |   | 2.32   | 2.32   | 1.94   |
| Working Range         | MAX. DIGGING REACH            | mm             | A | 10,233 | 10,924 | 11,160 |
|                       | MAX. DIGGING REACH (GROUND)   | mm             | B | 10,036 | 10,608 | 10,962 |
|                       | MAX. DIGGING DEPTH            | mm             | C | 6,668  | 7,182  | 7,485  |
|                       | MAX. LOADING HEIGHT           | mm             | D | 6,641  | 7,542  | 7,439  |
|                       | MIN. LOADING HEIGHT           | mm             | E | 3,243  | 3,192  | 2,856  |
|                       | MAX. DIGGING HEIGHT           | mm             | F | 9,859  | 10,527 | 10,524 |
|                       | MAX. BUCKET PIN HEIGHT        | mm             | G | 8,524  | 9,191  | 8,889  |
|                       | MAX. VERTICAL WALL DEPTH      | mm             | H | 3,770  | 3,912  | 5,244  |
|                       | MAX. RADIUS VERTICAL          | mm             | I | 8,368  | 9,106  | 8,375  |
|                       | MAX. DEPTH TO 8' LINE         | mm             | J | 6,480  | 7,042  | 7,401  |
|                       | MIN. RADIUS 8' LINE           | mm             | K | 3,432  | 3,683  | 3,651  |
|                       | MIN. DIGGING REACH            | mm             | L | 1,254  | 1,507  | 1,011  |
|                       | MIN. SWING RADIUS             | mm             | M | 4,075  | 4,373  | 4,401  |
|                       | MAX.LOADING REACH(MAX.HEIGHT) | mm             | O | 5,115  | 5,414  | 6,468  |