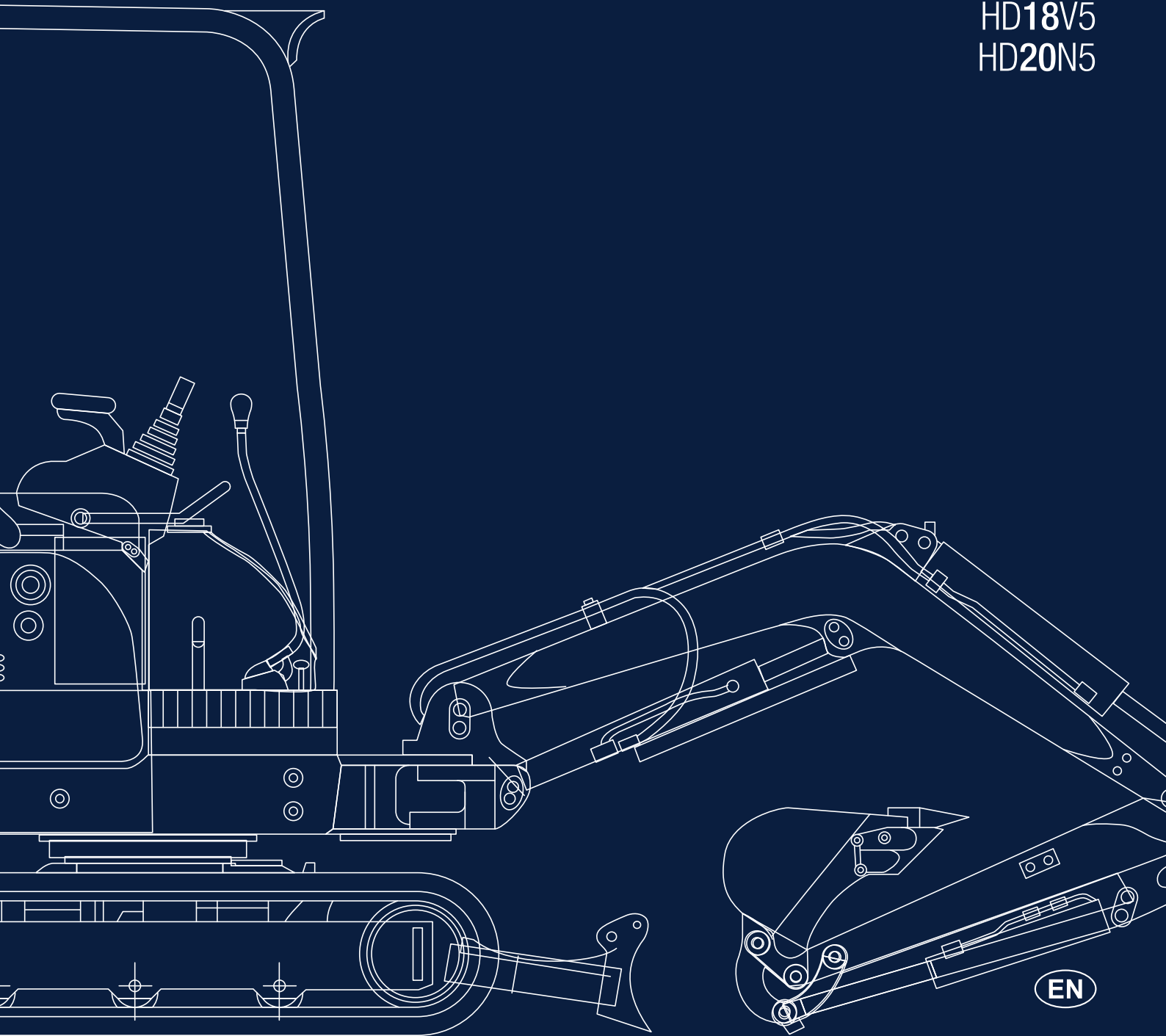


# MINI-EXCAVATORS

## 0.9 / 2.0 TONS

HD09V5  
HD12VXE  
HD17VXE  
HD18V5  
HD20N5



# HD09V5

## WHERE OTHERS CANNOT REACH

The new power-packed 9V5 excavator maximises operating efficiency by improving fuel consumption and reducing vibrations and noise. All this thanks to the adoption of the new 719 cc 3-cylinder engine with a power output of 7.4 kW at 2000 rpm and an optimised machine layout. Power and digging speed are assured when working in confined spaces: in small restructuring works, in operations of digging and maintenance of sewerage systems, also in tunnels where larger machines cannot operate, but also in the gardening and nursery sector.





### COMPACT DIMENSIONS

Front turning radius with tilt: **950 mm**.  
Machine width in narrow configuration: **720 mm**.

### DOPPIA VELOCITÀ DI TRASLAZIONE

La doppia velocità di traslazione (1,8 / 3,2 km/h) consente una efficiente traslazione e la massima manovrabilità durante le operazioni in cantiere e spostamenti veloci. Il pedale della 2ª velocità è di facile utilizzo.



### LED WORK LIGHT

The LED work light positioned on the arm perfectly lights-up the excavation area.



### KUBOTA 7.4 KW DIESEL ENGINE

The three-cylinder Kubota engine calibrated at 7,4 Kw power output at 2000 rpm ensures comfort and reduced consumption thanks to the very low noise level and vibrations. With the new Stage V and Tier 4 Final engine, the 9V5 is ready to confirm the leadership of the Kato compact machines on the world market.



### Swing motor

Despite the compact size of the machine, the swing motor is equipped with an automatic brake for blocking the turret in any position. Greater production obtained thanks to the increased travel speed, the more efficient use of the swing motor and the lower centre of gravity.

### Rotation inside the track gauge: to adapt to any situation

Thanks to the very small rear swing radius of 770 mm, during rotation the frame rotates within the track gauge of the tracks with the undercarriage widened and allows greater safety for both the machine and the operator. If the undercarriage is closed, access to confined spaces is facilitated. The version with the auxiliary system for the demolition hammer and other accessories is available as an optional.



Low fuel consumption, low running costs and facilitated maintenance ensure higher profit. High reliability and the long life of the machine are ensured by the optimised design and the low swing speed of the combustion engine.



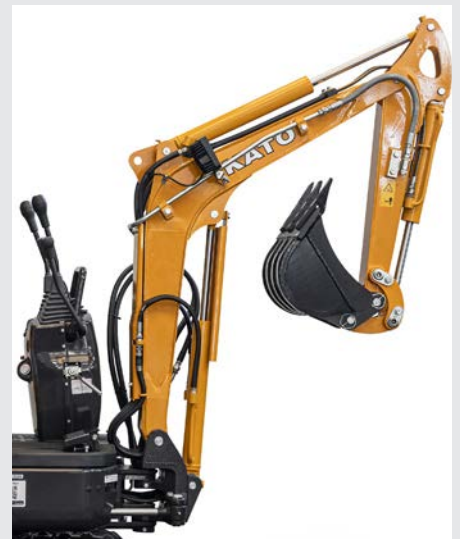
### INSPECTION AND MAINTENANCE

The fully openable engine hood facilitates visibility of most of the engine and allows easy access to the various components for inspection and maintenance operations. The battery is low maintenance. The resin fuel tank has been designed to prevent rust and the aluminium radiator ensures efficient heat exchange and high resistance to corrosion. The large air filter increases maintenance intervals. The new design of the 9V5 satisfies facilitated maintenance and the legendary reliability of the KATO machines.



### THE ROLLERS

Rollers with double external side support reduce wear on the tracks, improve load distribution and increase operating stability.



### WORK EQUIPMENT

The considerable geometry of movement of the arm and the minimum distance between bucket and dozer blade, allow digging even close to the dozer blade. The lifting cylinder has a strong metal guard and all feed pipes to the bucket and swing cylinders are well protected.



### COMFORT AND SAFETY

High operator comfort: low vibrations and low noise. Human interface improved with the digital hour meter. Designed around the operator, the driver's seat is comfortable thanks to the adjustable seat and ergonomic controls. The driver's seat can be accessed from both sides. The HD09V5 is equipped with DCS (Direct Control System) controls that ensure maximum precision. The control pedals of the auxiliary circuit and the swing are separate. Both pedals can be folded or covered, thus increasing space at the operator's feet. The control panel is easy to read. A safety device controls access to the driver's seat: if the lever is raised, it prevents arm movements. A front bar ensures the operator a safe and protected driver's seat; at the back the machine is well protected by cast iron bumpers.

## Variable gauge undercarriage

Thanks to the extendible frame (720 - 950 mm), the HD09V5 ensures high versatility. Access to very limited space is allowed and by widening the undercarriage in just a few seconds, a high level of safety and significant operating stability are obtained.



### DOUBLE-PIN BLADE EXTENSION

The double-pin blade extension system facilitates and simplifies installation, ensuring greater strength during use.

### GREAT STABILITY

Better machine stability thanks to an equal distribution of weights and the larger front blade.

## TECHNICAL SPECIFICATIONS

|                                        |                                |
|----------------------------------------|--------------------------------|
| Engine                                 | Kubota D722-E4B                |
| No. of cylinders / displacement        | 3 / 719 cc                     |
| Rated output                           | 7.4 kW / 2000 rpm              |
| Machine weight with canopy (std arm)   | 984 kg                         |
| Operating weight with canopy (std arm) | 1059 kg                        |
| Max. digging depth                     | 1570 / 1770 mm (with long arm) |
| Minimum front turning radius           | 1220 / 1320 mm (with long arm) |
| Bucket digging force                   | 1060 kgf                       |
| Standard bucket width                  | 350 mm                         |
| Standard bucket capacity               | 0.022 m <sup>3</sup>           |

# HD12VXE

## SMALL AND POWERFUL

The HD12VXE mini excavator is brand new: small enough to pass through doors, sturdy enough to do jobs of higher category models. An exceptional machine. With its 9.4 kW engine and digging depth of 2010 mm, it can handle heavy work in the most challenging conditions with ease.



MINI-EXCAVATORS 0.9 / 2.0 TONS





#### REAR FRAME IN TRACK GAUGE

During rotation, the frame rotates within the track gauge of the tracks with the undercarriage widened, allowing greater safety for the machine and the operator. If the undercarriage is closed, access to very confined spaces is facilitated. With an 870 mm width and a reclining rollbar, this machine becomes ideal for internal restructuring work.

#### COMPACT SIZE

Excellence in small size and high power. The HD12VXE can access previously inaccessible spaces, inside buildings or it can pass through buildings to reach hard-to-access internal gardens and courtyards.

#### DOUBLE TRAVELLING SPEED

The double travelling speed (2.3 / 4.0 km / h) allows fast on-site displacements and maximum manoeuvrability.

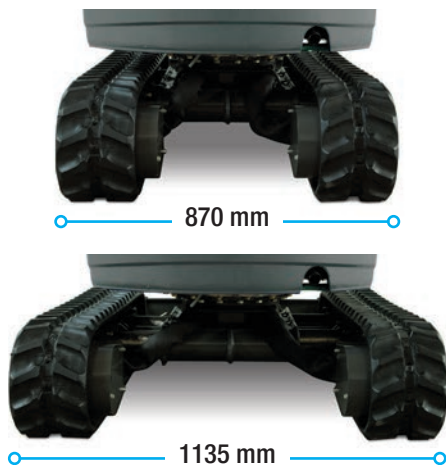


Minimum front turning radius with tilt  
 $r_h = 1291 \text{ mm}$ ,  $l_h = 1383 \text{ mm}$   
 Front turning radius = 1540 mm  
 Rear turning radius = 552 mm

Machine weight of 1180 kg,  
 ideal for transport  
 with trucks category  
 up to 3.5 tons







### VARIABLE GAUGE UNDERCARRIAGE

Thanks to the variable gauge undercarriage (870 - 1135 mm) the HD12VXE ensures significant safety and operating stability during side digging and lifting operations on sites with minimal manoeuvrability spaces, on uneven surfaces or in the presence of sharp slopes. The circular pipe improves outreach sliding and decreases clearance.

### SAFETY

The TOPS certified rollbar canopy (the optional FOPS cover can be supplied on request) ensures maximum operating visibility. Arm movements are cushioned by the Anti-Shock valve of the hydraulic circuit. During lifting of the 1st arm, the stop shock at limit switch of the arm is limited by the cylinder shock-absorbing system. The self-braking swing motor prevents accidental movements of the arm during machine transport or parking. The swing of the arm is controlled by means of the left joystick. The hydraulic circuit control pedal is fitted with a tilting protection with the double function of footrest and block to keep the control engaged.



The HD12VXE is able to pass through a door with less than 90 cm clearance. In addition, the rollbar can be disassembled in a few minutes to facilitate passing under minimum heights.



### DOUBLE-PIN BLADE EXTENSION

The double-pin blade extension system facilitates and simplifies installation, ensuring greater strength during use.



**MINI-EXCAVATORS 0.9 / 2.0 TONS**





## ACCESSIBILITY AND FACILITATED MAINTENANCE

The HD12VXE fits a vertical opening hood facilitating accessibility and visibility of most of the engine and allowing easy access to the various components for daily inspection (oil-filters-belts) and maintenance. The battery requires low maintenance. The large diesel tank allows the machine to be used for the whole day, is subjected to normal use. It is easily accessed for refuelling and protected with a lockable cap. Inspection of the operating hydraulic pressures is facilitated by the pressure intakes on the pumps.

## YANMAR 9.4 KW DIESEL ENGINE

The 3-cylinder engine has a low rotation speed and the utilisation index is reduced to improve durability and reliability over time. The high-capacity air filter consists of a double cartridge which reduces maintenance and increases engine reliability. The fuel circuit features a diesel filter with water separator, ensuring a longer engine life. The high engine efficiency combined with an advanced hydraulic system, ensures reduced fuel consumption, less noise and limits polluting emissions according to the EPA Tier 4 regulation requirements.

## THE HYDRAULIC CIRCUIT

It uses two variable displacement pumps with Straight Travel system on the blade section, and an autonomous gear pump for the servo controls, ensuring a constant balance between operating speed and work forces. Precise and simultaneous manoeuvres are ensured without loss of power or drop in engine speed. The HD12VXE is able to travel at the same time as manoeuvre the blade, without losing trajectory linearity.

## THE AUXILIARY HYDRAULIC CIRCUIT

For the use of hydraulic accessories such as the demolition hammer, shears, hydraulic grippers, augers, the auxiliary hydraulic circuit is standard fitted up to the 2nd arm. A specific diverter makes it possible to select the function in a simple or double acting manner.



## COMFORT AND SAFETY

The driver's seat is particularly comfortable, thanks to the enveloping and adjustable seat, the adjustable wrist support and the ergonomic layout of the controls. It is standard equipped with servo-assisted joysticks which ensure maximum precision. Two safety levers control access to the driver's seat from both sides, and if raised, they inhibit all work controls and machine travel. The multifunction analogue monitor - hour meter, fuel level, oil temperature with luminous indicators - is intuitive and facilitates the task of less experienced operators, improving their productivity.



## WORK LIGHT

A work light positioned on the arm perfectly lights-up the excavation area.

## TECHNICAL SPECIFICATIONS

|                                 |                      |
|---------------------------------|----------------------|
| Engine                          | Yanmar 3TNM68        |
| No. of cylinders / displacement | 3 / 784 cc           |
| Rated output                    | 9.4 kW / 2200 rpm    |
| Machine weight with rollbar     | 1180 kg              |
| Operating weight with rollbar   | 1255 kg              |
| Max. digging depth              | 2010 mm              |
| Minimum front turning radius    | 1540 mm              |
| Bucket digging force            | 1210 kgf             |
| Standard bucket width           | 400 mm               |
| Standard bucket capacity        | 0.036 m <sup>3</sup> |

# HD17VXE

## WHERE OTHERS CANNOT REACH

The ultra-compact model HD17VXE mini excavator utilises the technology of higher class machines. Power and speed of digging are assured when working in confined spaces: in small restructuring works, in operations of digging and maintenance of sewerage systems, also in tunnels where larger machines cannot operate, but also in the gardening and nursery sector.

Fast on-site displacements and maximum manoeuvrability



Significant safety and operating stability during side digging and lifting operations in confined spaces or on particularly rugged terrain or on sloping terrain

MINI-EXCAVATORS 0.9 / 2.0 TONS



### 10.5 KW 3TNV70 YANMAR DIESEL ENGINE

The 3-cylinder engine has a low rotation speed and the utilisation index is reduced to improve durability and reliability over time. The high-capacity air filter consists of a double cartridge which reduces maintenance and increases engine reliability. The fuel circuit features a diesel filter with water separator, ensuring a longer engine life. The high engine efficiency combined with an advanced hydraulic system, ensures reduced fuel consumption, less noise and limits polluting emissions according to the EPA Tier 4 regulation.

### DOUBLE TRAVELLING SPEED

The double travelling speed (2.1 / 4.2 km / h) allows fast on-site displacements and maximum manoeuvrability.



### COMFORT AND SAFETY

The workstation is comfortable thanks to the adjustable and sprung seat, horizontal adjustment, adjustable backrest and ergonomic layout of the controls. The standard version is equipped with pilot-operated joysticks that ensure maximum precision. The safety levers control access to the driver's seat and, if raised, inhibits all work controls and machine travel. The instrumentation console is simple and intuitive. A document holder is positioned behind the seat.

### WORK EQUIPMENT

For the use of various hydraulic accessories, the auxiliary hydraulic circuit is standard fitted up to the 2nd arm. The system uses a valve for the direct return of the oil to the hydraulic tank. A pedal locking device ensures the use of manually controlled hydraulic tools.

The long arm version is available as an option to increase excavation depth (max 2350 mm). The control with second speed button is supplied.



### REAR FRAME IN TRACK GAUGE

During rotation, the frame rotates within the track gauge of the tracks with the undercarriage widened, allowing greater safety for the machine and the operator. If the undercarriage is closed, access to confined spaces is facilitated. It is available with rubber tracks and 4-post canopy with TOPS-FOPS protection (complying with EEC safety regulations).



### OPERATING FLEXIBILITY

When the machine is operating with the undercarriage closed, the two extendable sections of the blade can be easily stowed behind the blade itself. A lever via a function selector controls the movement of the blade or the expansion of the undercarriage.



### MAXIMUM VERSATILITY

The particular geometry of the arm and the movement together with the minimum distance between bucket and dozer blade, allow digging and loading of large materials even close to the dozer blade.

### SOLIDITY AND STABILITY

In addition to helping reduce the specific pressure on the ground, the long undercarriage (1570 mm) ensures great frontal stability with the blade raised. The travel unit is integrated into the width of the tracks.



### THE HYDRAULIC CIRCUIT

It uses two variable displacement pumps and two gear pumps, ensuring a constant balance between operating speed and work forces. Precise and simultaneous manoeuvres are ensured without loss of power or drop in engine speed. The HD17VXE is able to travel at the same time as performing work manoeuvres, without losing trajectory linearity.



### ACCESSIBILITY AND FACILITATED MAINTENANCE

The side opening engine hood facilitates accessibility and visibility of most of the engine and allows easy access to the various components for daily inspection (oil-filters-belts) and maintenance. The battery requires low maintenance. Refuelling with diesel is allowed by comfortable and easy access with a key cap. Inspection of the operating pressures is facilitated by the quick couplings on the pumps.

## Safety

During lifting of the 1st arm, the stop shock at limit switch of the arm is limited by the cylinder shock-absorbing system

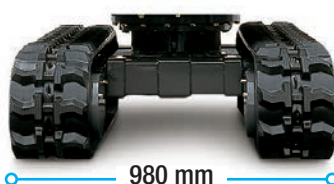
A similar system comes into action also when the swing bearing rotates

Arm movements are cushioned by the Anti-Shock valve of the hydraulic circuit

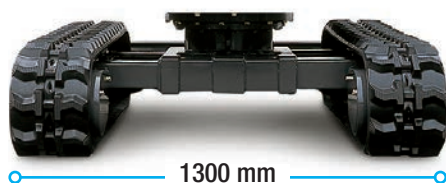
The canopy ensures maximum operating visibility

The self-braking swing motor prevents accidental movements in the absence of the operator

The control pedals of the auxiliary circuit and tilt are separated and reinforced by sturdy guards with footrest function



980 mm



1300 mm

### VARIABLE GAUGE UNDERCARRIAGE

Thanks to the extendable frame (980 - 1300 mm) the HD17VXE ensures considerable safety and operating stability during side digging and lifting operations in confined spaces or on particularly rugged terrain or on sloping terrain. Work sites with reduced manoeuvring spaces are no longer a problem.

## TECHNICAL SPECIFICATIONS

|                                 |                         |
|---------------------------------|-------------------------|
| Engine                          | Yanmar 3TNV70           |
| No. of cylinders / displacement | 3 / 854 cc              |
| Rated output                    | 10.5 kW / 2300 rpm      |
| Machine weight                  | 1615 kg                 |
| Operating weight                | 1690 kg                 |
| Max. digging depth              | 2350 mm (with long arm) |
| Minimum front turning radius    | 1580 mm (with long arm) |
| Bucket digging force            | 1600 kgf                |
| Standard bucket width           | 400 mm                  |
| Standard bucket capacity        | 0.044 m <sup>3</sup>    |



# HD18V5

## MINI EXCAVATOR, GREAT PERFORMANCE

KATO has developed the HD18V5 mini excavator equipping it with a YANMAR 3TNV74 engine which, with its 993 cc displacement, has a calibration power of 10.5 kW at 2300 rpm.

HD18V5's operating weight is 1855 kg with rubber track. The standard configuration features the front blade with variable widths 990 mm / 1300 mm and a 400 mm bucket.

MAXIMUM DIGGING RADIUS:

3820 MM

MAXIMUM VERTICAL

DIGGING DEPTH:

1730 MM



STANDARD BUCKET  
Width of 400 mm and  
capacity of 0.04 m3

LED LIGHT  
incorporated  
into the arm

BLADE  
Width of 990 mm / 1300 mm



MINI-EXCAVATORS 0.9 / 2.0 TONS



#### YANMAR 3TNV74 ENGINE

4-stroke, 993 cc, 3  $\phi$  74 x 77 mm cylinder, water cooled engine. Compact, light and simple. High torque and power, fuel consumption is 273 g/kW-h. Minimised pollution emissions and facilitated maintenance with reduced maintenance and operating costs.



#### HYDRAULIC SYSTEM

All machine operations are managed by joystick lever. The system consists of 3 pumps, 17.2 x 2 + 12 L / min, for a pressure of 20.6 MPa (210 kgf / cm<sup>2</sup>).



#### DRIVER'S SEAT

The driver's seat is spacious and enveloping, with a wrist support and display with machine function control instrumentation.

The canopy has a FOPS protection against the falling of objects from height and a TOPS and ROPS protection against tipping and rolling.



#### STANDARD BUCKET AND BLADE

The 400 mm bucket has a digging force of 1670 kgf and a capacity of 0.04 m<sup>3</sup>. The blade is 990 mm wide and can be extended to 1300 mm.



#### VARIABLE GAUGE UNDERCARRIAGE

Thanks to the 990 - 1300 mm extendable frame, the HD18V5 significantly increases stability during side digging and lifting, even on particularly uneven surfaces.



## TECHNICAL SPECIFICATIONS

|                                 |                              |
|---------------------------------|------------------------------|
| Engine                          | YANMAR 3TNV74                |
| No. of cylinders / displacement | 3 / 993 cc                   |
| Rated output                    | 10.5 kW / 2300 rpm           |
| Machine weight                  | 1780 kg                      |
| Operating weight                | 1855 kg                      |
| Max. digging depth              | 2190 mm                      |
| Minimum turning radius          | 1480 / 650 mm (front / rear) |
| Bucket digging force            | 1670 kgf                     |
| Standard bucket width           | 400 mm                       |
| Standard bucket capacity        | 0.04 m <sup>3</sup>          |

# HD20N5

## INNOVATION AND OPERATIONAL COMFORT

An ideal mini-excavator for working in confined spaces and rough terrain, thanks to its extendable frame (990 to 1300 mm) that allows for high versatility and operational stability. With an operating weight of 1895 kg (canopy version) and 2045 kg (cabin version), dual travel speeds (2.1-4.0 km/h) and a digging depth of 2440 mm, the HD20N5 is at the top of its class.

MAXIMUM DIGGING RADIUS:  
3970 MM  
MAXIMUM VERTICAL  
DIGGING DEPTH:  
2020 MM



AVAILABLE WITH CABIN



MINI-EXCAVATORS 0.9 / 2.0 TONS





#### YANMAR 3TNV74 ENGINE

4-stroke, 993 cc, 3  $\phi$  74 x 77 mm cylinder, water cooled engine. Compact, light and simple. High torque and power, fuel consumption is 273 g/kW-h. Minimised pollution emissions and facilitated maintenance with reduced maintenance and operating costs.



#### HYDRAULIC SYSTEM

All machine operations are managed by joystick lever. The system consists of 3 pumps, 17.2 x 2 + 12 L / min, for a pressure of 20.6 MPa (210 kgf / cm<sup>2</sup>).



#### DRIVER'S SEAT

The driver's seat is spacious and enveloping, with a wrist support and display with machine function control instrumentation.

The canopy has a FOPS protection against the falling of objects from height and a TOPS and ROPS protection against tipping and rolling.



#### VARIABLE GAUGE UNDERCARRIAGE

Thanks to the 990 - 1300 mm extendable frame, the HD20N5 significantly increases stability during side digging and lifting, even on particularly uneven surfaces.



#### DOUBLE-PIN BLADE EXTENSION

The double-pin blade extension system facilitates and simplifies installation, ensuring greater strength during use.

## TECHNICAL SPECIFICATIONS

|                                 |                              |
|---------------------------------|------------------------------|
| Engine                          | YANMAR 3TNV74                |
| No. of cylinders / displacement | 3 / 993 cc                   |
| Rated output                    | 10.5 kW / 2300 rpm           |
| Machine weight Canopy / Cabin   | 1820 / 1970 kg               |
| Operating weight Canopy / Cabin | 1895 / 2045 kg               |
| Max. digging depth              | 2440 mm                      |
| Minimum turning radius          | 1550 / 980 mm (front / rear) |
| Bucket digging force            | 1670 kgf                     |
| Standard bucket width           | 400 mm                       |
| Standard bucket capacity        | 0.04 m <sup>3</sup>          |

# specifications

## HD09V5

## HD12VXE

| GENERAL PERFORMANCE                             |                             |                            |
|-------------------------------------------------|-----------------------------|----------------------------|
| Standard bucket capacity                        | 0.022 m³                    | 0.036 m³                   |
| Standard bucket width                           | 350 mm                      | 400 mm                     |
| Machine weight                                  | 984 kg                      | 1180 kg                    |
| Operating weight                                | 1059 kg                     | 1255 kg                    |
| Transport dimensions                            | 2780 x 765 x 2330 mm        | 3110 x 870 x 2280 mm       |
| Gradeability                                    | 30°                         | 30°                        |
| Ground contact pressure                         | 28,6 kPa (0,29 kgf / cm²)   | 26.2 kPa (0.27 kgf / cm²)  |
| Minimum ground clearance                        | 160 mm                      | 170 mm                     |
| ENGINE                                          |                             |                            |
| Model                                           | Kubota D722-E4B             | Yanmar 3TNM68              |
| No. of cylinders and engine size                | 3 / 719 cc                  | 3 / 784 cc                 |
| Bore for stroke                                 | 67 x 68 mm                  | 68 x 72 mm                 |
| Rated output (ISO 1585)                         | 7.4 kW / 2000 rpm           | 9.4 kW / 2200 rpm          |
| Fuel consumption                                | 252 g / kWh                 | 260 g / kWh                |
| Engine oil pan capacity                         | 3.2 L (Maximum level)       | 2.5 L (Maximum level)      |
| ELECTRICAL EQUIPMENT                            |                             |                            |
| Voltage                                         | 12 V                        | 12 V                       |
| Battery                                         | 12 V - 37 Ah                | 12 V - 45 Ah               |
| Alternator                                      | 12 V - 14 A                 | 12 V - 20 A                |
| Starter motor                                   | 12 V - 1.2 kW               | 12 V - 1.2 kW              |
| HYDRAULIC SYSTEM                                |                             |                            |
| Pumps maximum flow rate                         | 22.4 L / min                | 13.2 L / min x 2           |
| Max Pressure / Setting                          | 16 MPa (163 kgf / cm²)      | 20.6 MPa (210 kgf / cm²)   |
| Control                                         | DCS (Direct Control System) | joystick                   |
| Number of pumps                                 | 2                           | 3                          |
| DOUBLE ACTION HYDRAULIC CIRCUIT FOR ACCESSORIES |                             |                            |
| Maximum flow rate                               | 22.4 L / min                | 26 L / min                 |
| Max setting pressure                            | 16 MPa (163 kgf / cm²)      | 20.6 MPa (210 kgf / cm²)   |
| END-OF-STROKE CUSHIONING                        |                             |                            |
| Arm cylinder                                    | rod fully extended          | rod fully extended         |
| SLEWING SYSTEM                                  |                             |                            |
| Slewing speed                                   | 8.0 min⁻¹                   | 8.5 min⁻¹                  |
| Turret braking                                  | automatic multi-disc brake  | automatic multi-disc brake |
| BUCKET PERFORMANCE                              |                             |                            |
| Bucket digging force (ISO 6015)                 | 10.4 kN (1060 kgf)          | 11.86 kN (1210 kgf)        |
| Bucket accumulation force (ISO 6015)            | 6.1 kN (620 kgf)            | 7.84 kN (800 kgf)          |
| LOWER FRAME                                     |                             |                            |
| Undercarriage length                            | 1220 mm                     | 1339 mm                    |
| Extendible undercarriage                        | 720 / 950 mm                | 870 / 1135 mm              |
| Tracks width                                    | 180 mm                      | 200 mm                     |
| Lower / upper rollers per side                  | 2                           | 3                          |
| Track tension                                   | with grease pump            | with grease pump           |
| Blade dimensions (wxh) mm                       | 720 / 970 mm x 240 mm       | 870 / 1135 mm x 230 mm     |
| Upward movement                                 | 220 mm                      | 230 mm                     |
| Downward movement                               | 150 mm                      | 210 mm                     |
| TRAVEL SYSTEM                                   |                             |                            |
| Travel speed (1a / 2a)                          | 1.8 / 3.2 km / h            | 2.3 / 4.0 km / h           |
| CAPACITY                                        |                             |                            |
| Fuel tank capacity                              | 11 L                        | 12.5 L                     |
| Hydraulic tank capacity                         | 9.6 L                       | 17 L                       |
| Hydraulic circuit total capacity                | 14 L                        | 26 L                       |
| Engine coolant                                  | 2.7 L                       | 3.6 L                      |
| EXCAVATION ARM                                  |                             |                            |
| Right swing angle                               | 90°                         | 80°                        |
| Left swing angle                                | 50°                         | 50°                        |
| OTHER DATA                                      |                             |                            |
| Sound power level Lwa                           | 90 dB                       | 93 dB                      |

## HD17VXE

## HD18V5

## HD20N5

|                                        |                                       |                                       |
|----------------------------------------|---------------------------------------|---------------------------------------|
| 0.044 m <sup>3</sup>                   | 0.04 m <sup>3</sup>                   | 0.04 m <sup>3</sup>                   |
| 400 mm                                 | 400 mm                                | 400 mm                                |
| 1615 kg                                | 1780 kg                               | 1820/1970 kg (Canopy/Cabin)           |
| 1690 kg                                | 1855 kg                               | 1895/2045 kg (Canopy/Cabin)           |
| 3380 x 980 x 2330 mm                   | 3450 x 990 x 2390 mm                  | 3580 x 990 x 2400 mm                  |
| 30°                                    | 30°                                   | 30°                                   |
| 25.6 kPa (0.26 kgf / cm <sup>2</sup> ) | 30 kPa (0.30 kgf / cm <sup>2</sup> )  | 30 kPa (0.30 kgf / cm <sup>2</sup> )  |
| 175 mm                                 | 170 mm                                | 170 mm                                |
| Yanmar 3TNV70                          | Yanmar 3TNV74                         | Yanmar 3TNV74                         |
| 3 / 854 cc                             | 3 / 993 cc                            | 3 / 993 cc                            |
| 70 x 74 mm                             | 74 x 77 mm                            | 74 x 77 mm                            |
| 10.5 kW / 2300 rpm                     | 10.5 kW / 2300 rpm                    | 10.5 kW / 2300 rpm                    |
| 272 g / kWh                            | 273 g / kWh                           | 273 g / kWh                           |
| 3.8 L (Maximum level)                  | 3.8 L (Maximum level)                 | 3.8 L (Maximum level)                 |
| 12 V                                   | 12 V                                  | 12 V                                  |
| 12 V - 45 Ah                           | 12 V - 45 Ah                          | 12 V - 45 Ah                          |
| 12 V - 20 A                            | 12 V - 20 A                           | 12 V - 20 A                           |
| 12 V - 1.1 kW                          | 12 V - 1.1 kW                         | 12 V - 1.1 kW                         |
| 17.2 L / min x 2 + 12 L / min          | 17.2 L / min x 2 + 12 L / min         | 17.2 L / min x 2 + 12 L / min         |
| 20.6 MPa (210 kgf / cm <sup>2</sup> )  | 20.6 MPa (210 kgf / cm <sup>2</sup> ) | 20.6 MPa (210 kgf / cm <sup>2</sup> ) |
| joystick                               | joystick                              | joystick                              |
| 3                                      | 3                                     | 3                                     |
| 29.2 L / min                           | 29.2 L / min                          | 29.2 L / min                          |
| 20.6 MPa (210 kgf / cm <sup>2</sup> )  | 20.6 MPa (210 kgf / cm <sup>2</sup> ) | 20.6 MPa (210 kgf / cm <sup>2</sup> ) |
| rod fully extended                     | rod fully extended                    | rod fully extended                    |
| 9.4 min <sup>-1</sup>                  | 8.5 min <sup>-1</sup>                 | 8.5 min <sup>-1</sup>                 |
| automatic multi-disc brake             | automatic multi-disc brake            | automatic multi-disc brake            |
| 15.7 kN (1600 kgf)                     | 16.4 kN (1670 kgf)                    | 16.4 kN (1670 kgf)                    |
| 9.35 kN (950 kgf)                      | 9.6 kN (980 kgf)                      | 8.2 kN (840 kgf)                      |
| 1570 mm                                | 1570 mm                               | 1570 mm                               |
| 980 / 1300 mm                          | 990 / 1300 mm                         | 990 / 1300 mm                         |
| 230 mm                                 | 230 mm                                | 230 mm                                |
| 3                                      | 3                                     | 3                                     |
| with grease pump                       | with grease pump                      | with grease pump                      |
| 980 / 1300 mm x 235 mm                 | 990 / 1300 mm x 235 mm                | 990 / 1300 mm x 235 mm                |
| 230 mm                                 | 300 mm                                | 300 mm                                |
| 340 mm                                 | 230 mm                                | 230 mm                                |
| 2.1 / 4.2 km / h                       | 2.1 / 4.0 km / h                      | 2.1 / 4.0 km / h                      |
| 20 L                                   | 22 L                                  | 22 L                                  |
| 19 L                                   | 16 L                                  | 16 L                                  |
| 23 L                                   | 21 L                                  | 21 L                                  |
| 3.6 L                                  | 3.5 L                                 | 3.5 L                                 |
| 80°                                    | 70°                                   | 70°                                   |
| 55°                                    | 55°                                   | 55°                                   |
| 93 dB                                  | 93 dB                                 | 93 dB                                 |

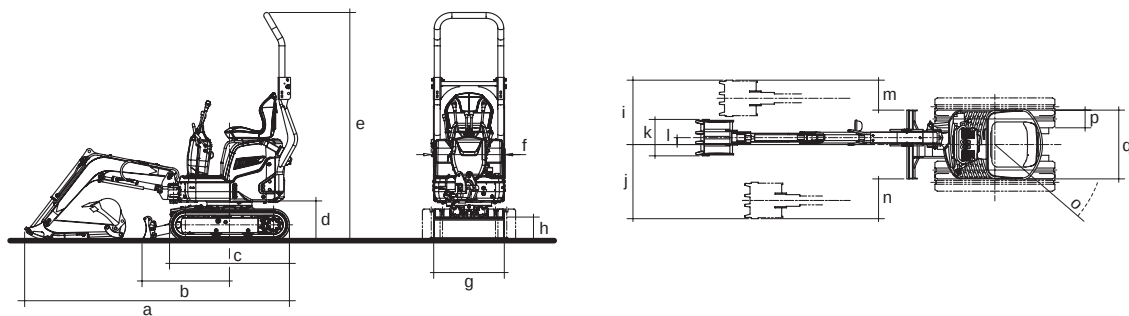


# equipment

|                                                                                          | HD09V5           | HD12VXE          | HD17VXE          | HD18V5           | HD20N5           |
|------------------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| <b>SUPPORT FRAME</b>                                                                     |                  |                  |                  |                  |                  |
| Rubber tracks (width mm)                                                                 | 180              | 200              | 230              | 230              | 230              |
| Attachment points for lifting-anchoring-towing and lubrication of the tilt cylinder foot | std              | std              | std              | std              | std              |
| Expandable undercarriage (mm) - Filling blade with extensions                            | 720-970          | 870-1135         | 980-1300         | 990-1300         | 990-1300         |
| <b>ENGINE</b>                                                                            |                  |                  |                  |                  |                  |
| Two-phase dry air filter with visual clogging indicator                                  | std              | std              | std              | std              | std              |
| Electric pre-heating device                                                              | std              | std              | std              | std              | std              |
| Fuel water separator                                                                     | std              | std              | std              | std              | std              |
| Diesel tank with bleeding cap                                                            | plastic material | plastic material | plastic material | plastic material | plastic material |
| Engine speed adjustment                                                                  | std              | std              | std              | std              | std              |
| <b>ELECTRICAL SYSTEM</b>                                                                 |                  |                  |                  |                  |                  |
| 12V battery with fuse box                                                                | std              | std              | std              | std              | std              |
| <b>DRIVING SEAT</b>                                                                      |                  |                  |                  |                  |                  |
| Longitudinal adjustment bucket seat, vinyl covering                                      | std              | std              | std              | std              | std              |
| Fabric seat                                                                              | -                | -                | -                | -                | opt              |
| Non-slip rubber mat                                                                      | std              | std              | std              | std              | std              |
| Wrist support                                                                            | -                | std              | std              | std              | std              |
| Seatbelt                                                                                 | with reel        | with reel        | std              | with reel        | with reel        |
| High speed control                                                                       | std              | std              | std              | std              | std              |
| Travel control pedals                                                                    | -                | std              | std              | -                | -                |
| <b>INSTRUMENTS AND CONTROL DEVICES</b>                                                   |                  |                  |                  |                  |                  |
| Worklight switch; auxiliary system control                                               | std              | std              | std              | std              | std              |
| Aux. system proportional control switch on joystick                                      | -                | -                | -                | std              | std              |
| Water temperature control instrument                                                     | -                | digital          | analogue         | analogue         | analogue         |
| Fuel level control instrument                                                            | visual           | digital          | analogue         | analogue         | analogue         |
| Hour meter                                                                               | std              | std              | std              | std              | std              |
| Warning light for: pre-heating, engine oil pressure, battery charge, water temperature   | std              | std              | std              | std              | std              |
| High gear indicator light                                                                | -                | -                | -                | std              | std              |
| Engine alarm device in case of overheating or low oil pressure                           | std              | std              | std              | std              | std              |
| Travel alarm                                                                             | -                | -                | -                | opt              | opt              |
| <b>CANOPY VERSION</b>                                                                    |                  |                  |                  |                  |                  |
| FOPS protection against falling objects                                                  | -                | opt              | std              | std              | std              |
| TOPS protection against tipping                                                          | -                | std              | -                | -                | -                |
| TOPS and ROPS protection against tipping and rolling                                     | opt              | -                | std              | std              | std              |
| <b>CABIN VERSION</b>                                                                     |                  |                  |                  |                  |                  |
| TOPS and ROPS protection against tipping and rolling                                     | -                | -                | -                | -                | std              |
| FOPS grid against falling objects from above                                             | -                | -                | -                | -                | opt              |
| Heating with fan                                                                         | -                | -                | -                | -                | std              |
| Front sliding window under the roof                                                      | -                | -                | -                | -                | std              |
| Removable lower front window                                                             | -                | -                | -                | -                | std              |
| Right-hand side sliding window                                                           | -                | -                | -                | -                | std              |
| Grab handles and "full wide" door handle to facilitate closing from the inside           | -                | -                | -                | -                | std              |
| Radio pre-arrangement                                                                    | -                | -                | -                | -                | std              |
| Windscreen wiper and washer on front window                                              | -                | -                | -                | -                | std              |
| Rearview mirror kit (right, left and rear) for cabin                                     | -                | -                | -                | -                | opt              |
| LED headlight kit (right, left and rear) for cabin                                       | -                | -                | -                | -                | opt              |
| <b>HYDRAULIC SYSTEM</b>                                                                  |                  |                  |                  |                  |                  |
| ISO assisted hydraulic controls                                                          | mechanical       | std              | std              | std              | std              |
| Gear pump / variable flow rate (std)                                                     | gear             | std              | std              | std              | std              |
| Hydraulic arm swing control                                                              | pedal            | joystick         | pedal            | pedal            | pedal            |
| Track adjustment control                                                                 | std              | std              | std              | std              | std              |
| Worklight positioned centrally under the arm                                             | -                | -                | -                | std              | std              |
| <b>DIGGING AND MOVING EQUIPMENT</b>                                                      |                  |                  |                  |                  |                  |
| Monobloc arm (length mm)                                                                 | 1350             | 1480             | 1650             | 1710             | 1710             |
| Rocker arm (length mm)                                                                   | 700              | 870              | 950              | 985              | 1235             |
| Long rocker arm                                                                          | +200 mm (opt)    | -                | +250 mm (opt)    | +250 mm (opt)    | -                |
| Arm hydraulic swinging angle                                                             | 140°             | 130°             | 135°             | 70° / 55°        | 70° / 55°        |
| Limit shock absorber on boom cylinder                                                    | std              | std              | std              | std              | std              |
| Anti-Shock valve on arm cylinder                                                         | -                | std              | std              | -                | -                |
| Rapid attachment of mechanical accessories                                               | opt              | opt              | opt              | opt              | opt              |
| Bucket in various dimensions                                                             | opt              | opt              | opt              | opt              | opt              |
| <b>HYDRAULIC CIRCUITS FOR ACCESSORIES</b>                                                |                  |                  |                  |                  |                  |
| Hydraulic circuit for hammer with direct return to tank for double-acting accessories    | std              | std              | std              | std              | std              |
| Second hydraulic circuit for double-acting accessories                                   | -                | -                | -                | opt              | opt              |
| <b>SAFETY AND COMFORT</b>                                                                |                  |                  |                  |                  |                  |
| Operating and travel controls lock out to enable the operator to exit                    | std              | std              | std              | std              | std              |
| Single key for ignition, diesel tank cap and bonnet locks                                | std              | std              | std              | std              | std              |
| Diesel tank cap with lock and mesh filter                                                | -                | std              | std              | std              | std              |
| Glass breaker hammer in the cabin                                                        | -                | -                | -                | -                | std              |
| Turret lock automatic brake                                                              | std              | std              | std              | std              | std              |
| Boom cylinder anti-drift system                                                          | -                | -                | std              | std              | std              |
| Horn                                                                                     | std              | std              | std              | std              | std              |
| External rear counterweight                                                              | -                | -                | opt              | opt              | -                |

MINI-EXCAVATORS 0.9 / 2.0 TONS

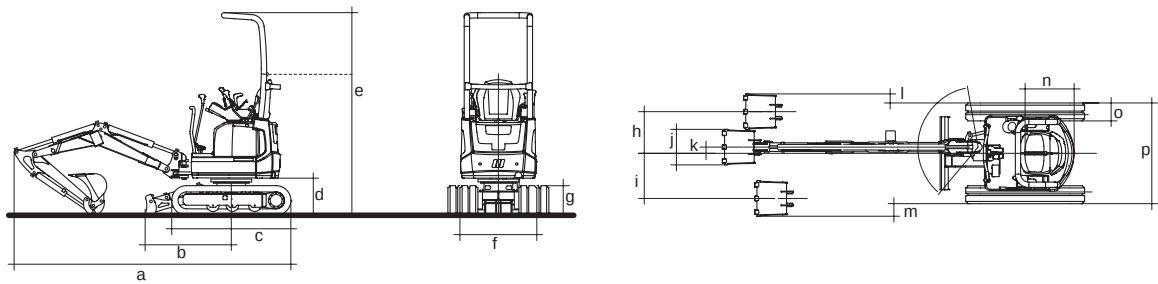
# HD09V5



## DIMENSIONS (mm)

| a    | b   | c    | d   | e    | f   | g       | h   | i   | j   | k   | l  | m   | n   | o   | p   | q       |
|------|-----|------|-----|------|-----|---------|-----|-----|-----|-----|----|-----|-----|-----|-----|---------|
| 2700 | 890 | 1220 | 390 | 2330 | 725 | 720/970 | 240 | 645 | 745 | 350 | 70 | 285 | 385 | 769 | 180 | 720/950 |

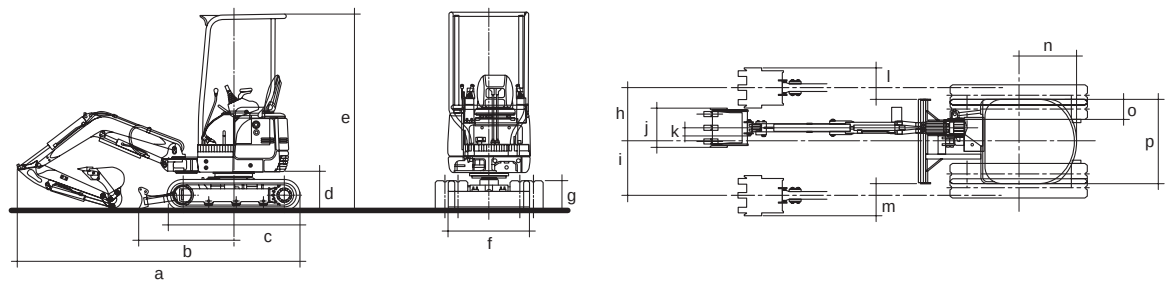
# HD12VXE



## DIMENSIONS (mm)

| a    | b   | c    | d   | e           | f          | g   | h   | i   | j   | k  | l   | m   | n   | o   | p          |
|------|-----|------|-----|-------------|------------|-----|-----|-----|-----|----|-----|-----|-----|-----|------------|
| 3110 | 970 | 1339 | 417 | 2277 / 1700 | 870 / 1135 | 333 | 469 | 508 | 400 | 70 | 102 | 141 | 552 | 200 | 870 / 1135 |

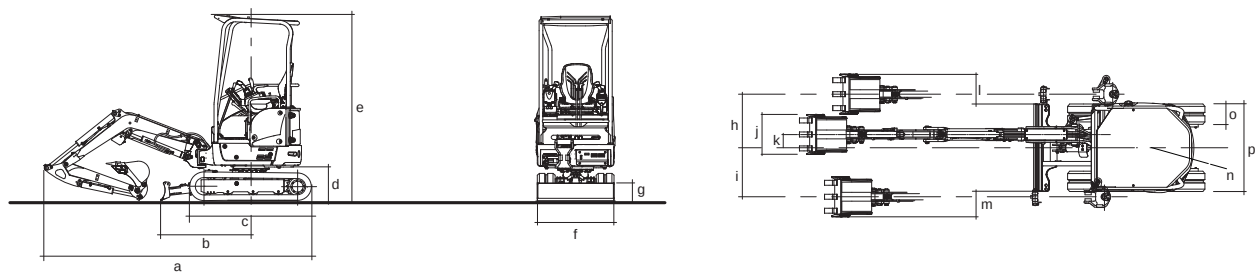
# HD17VXE



## DIMENSIONS (mm)

| a    | b    | c    | d   | e    | f          | g   | h   | i   | j   | k   | l   | m   | n   | o   | p          |
|------|------|------|-----|------|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| 3380 | 1155 | 1570 | 460 | 2330 | 980 / 1300 | 395 | 615 | 610 | 400 | 150 | 335 | 330 | 680 | 230 | 980 / 1300 |

# HD18V5

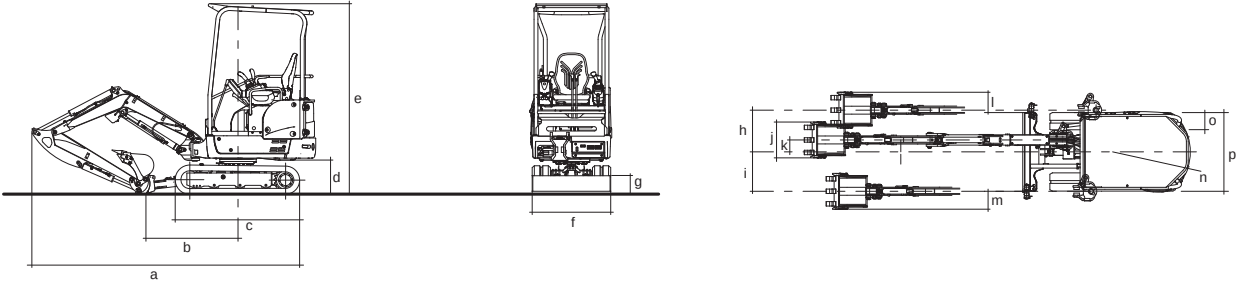


## DIMENSIONS (mm)

| a    | b    | c    | d   | e    | f        | g   | h   | i   | j   | k   | l   | m   | n   | o   | p        |
|------|------|------|-----|------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| 3450 | 1160 | 1570 | 430 | 2390 | 990/1300 | 235 | 455 | 705 | 400 | 150 | 310 | 260 | 650 | 230 | 990/1300 |



# HD20N5

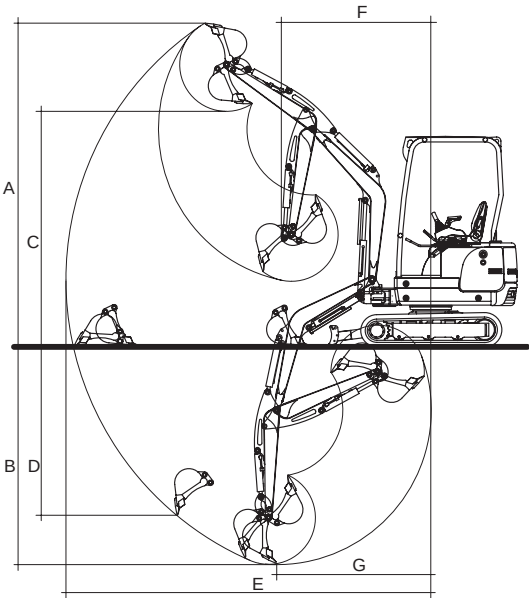


## DIMENSIONS (mm)

| a    | b    | c    | d   | e    | f          | g   | h   | i   | j   | k   | l   | m   | n   | o   | p          |
|------|------|------|-----|------|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| 3580 | 1160 | 1570 | 430 | 2400 | 990 / 1300 | 235 | 375 | 615 | 400 | 150 | 230 | 170 | 980 | 230 | 990 / 1300 |

## working range

the drawing is generic and purely for illustrative purposes



|                                         | HD09V5          | HD12VXE | HD17VXE         | HD18V5          | HD20N5  |
|-----------------------------------------|-----------------|---------|-----------------|-----------------|---------|
| <b>A</b> Maximum digging height         | 2750 / 2950* mm | 3050 mm | 3610 / 3810* mm | 3610 / 3830* mm | 3530 mm |
| <b>B</b> Max. digging depth             | 1570 / 1770* mm | 2010 mm | 2100 / 2350* mm | 2190 / 2440* mm | 2440 mm |
| <b>C</b> Maximum dumping height         | 1970 / 2150* mm | 2170 mm | 2560 / 2760* mm | 2570 / 2780* mm | 2520 mm |
| <b>D</b> Maximum vertical digging depth | 1120 / 1400* mm | 1480 mm | 1770 / 2010* mm | 1730 / 2040* mm | 2020 mm |
| <b>E</b> Maximum digging radius         | 2980 / 3190* mm | 3450 mm | 3760 / 3990* mm | 3820 / 4080* mm | 3970 mm |
| <b>F</b> Minimum front turning radius   | 1220 / 1320* mm | 1540 mm | 1490 / 1580* mm | 1480 / 1550* mm | 1550 mm |
| with right arm swing                    | 950 / 1030* mm  | 1290 mm | 1280 / 1340* mm | 1340 / 1410* mm | 1430 mm |
| <b>G</b> Maximum digging depth radius   | 1330 / 1340* mm | 1570 mm | 1680 mm         | 1660 / 1660* mm | 1560 mm |

\* with long arm



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