



**YANMAR**

# Vi038-7

MINI-EXCAVATOR



**Operating weight**

3 585/3 710 kg (canopy/cabin)

**Engine gross power**

18,9 kW at 2 200 rpm

**Digging force (short arm/long arm)**

20,8/18,9 kN

**Digging force (bucket)**

32,8 kN

# DELIVERING PERFORMANCE AND PRECISION IN CONFINED AREAS







## COMPACT SOLUTION

The ViO38-7 mini-excavator features a true Zero Tail Swing design, allowing complete rotation within its crawler width for maximum safety. Its compact length enhances maneuverability and improves transportability, perfect for narrow environments.



## OPERATOR COMFORT

Control levers are ideally positioned for exceptional precision and complemented by new travel pedals for intuitive maneuvering. The ViO38-7 features great visibility thanks to increased glass surface, a rear-view camera, and a 4,3-inch color display for enhanced operational ease.



## LATEST TECHNOLOGY

For efficient and powerful working, the ViO38-7 has the VIPPS hydraulic system and is equipped with hydraulic quick hitch supply lines. This concept is supported by a floating blade enabling precise leveling work. Both standard auto deceleration and Eco modes ensure fuel saving & carbon footprint reduction over the operation time.



## HIGH PERFORMANCE

The ViO38-7 delivers powerful performance with faster workgroup movements under load, higher dumping height and increased boom swing amplitude. The floating blade further enhances functionality in compact spaces.



## ENHANCED SAFETY FEATURES

The ViO38-7 ensures operator safety with ROPS and FOPS Level 1 certification. It features durable boom, blade and arm cylinder protection, advanced LED lighting for low-light conditions, superior visibility with large glass areas and a rear-view camera. The 4,3-inch color display provides real-time machine status, while safety is enhanced with an orange seatbelt, optional seatbelt sensor, green beacon, and a front polycarbonate shield.



## EASE OF MAINTENANCE

Easily removable side panels and cabin floor allow straightforward access to hydraulic components. Wide opening access doors allow fast daily checks and servicing, with further efficiency gains supported by Smart Assist Remote control as option.

# A SMART AND COMPACT JOBSITE SOLUTION



## COMPACT AND VERSATILE DESIGN

The ViO38-7 mini-excavator stands out with Yanmar's ViO design, ensuring that the standard counterweight doesn't extend beyond the track width. This results in an exceptionally small rear turning radius, making it ideal for confined spaces. The improved boom swing amplitude enhances both versatility and compactness, allowing for a better working range. This unique design philosophy maximizes maneuverability without compromising stability, ensuring superior performance in tight spaces.

## ENHANCED SAFETY

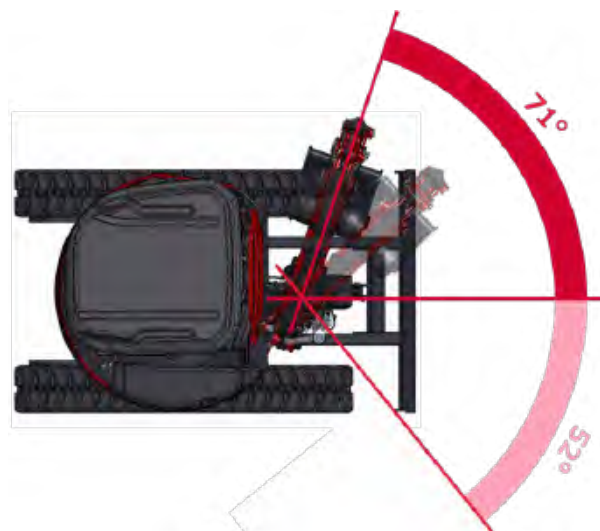
The compact design of the ViO38-7 significantly improves safety on job sites. With the zero tail swing, the risk of accidents is greatly reduced. This ensures a safer environment for both the operator and surrounding workers. The ViO design is focused on creating machines that offer maximum safety through minimal protrusion and enhanced visibility.

## EXCELLENT TRANSPORTABILITY

Transporting the ViO38-7 is effortless thanks to its compact overall length of only 4 755/4805 mm (short arm/long arm) and the inclusion of six tiedown points. With a transport weight of 3 530 kg (cabin)/3 405 kg (canopy), these features ensure secure and convenient transportation, making the ViO38-7 easy to move between jobsites. The combination of its compact size and lightweight structure ensures that the ViO38-7 can be transported quickly and efficiently, reducing downtime and increasing productivity.

## OPTIMIZED WORKING RANGE AND BOOM SWING

The ViO38-7 is designed for exceptional working range, versatility and improved visibility for the operator. It offers a boom swing of 71 degrees to the left and 52 degrees to the right, allowing for effective and productive work in various positions. The increased power for backfill work and improved swing usability on slopes further enhances its performance, making it highly capable for demanding tasks.





# ULTIMATE OPERATOR COMFORT



## SPACIOUS AND ERGONOMIC CABIN

The Vi038-7 mini excavator is designed with the operator at its core to ensure unmatched ease and productivity. The roomy cabin provides exceptional visibility, increased legroom and an ergonomic layout, ensuring that operating controls and switches are within easy reach, enhancing both convenience and safety for the operator.

## INNOVATIVE CONTROL FEATURES

The Vi038-7 features a brand new 4.3-inch color display, including auxiliary circuits settings for up to five attachments, providing easy and intuitive control. The handy joystick and button area, which includes a high-speed travel switch on the blade lever, are designed for ease of use and enhanced operational efficiency. More ergonomic travel pedals further improve the ease of maneuvering the machine.

## ADVANCED CLIMATE CONTROL

To maintain a pleasant working environment in all weather conditions, the Vi038-7 can be equipped with an optional air conditioning system. Strategically placed vents ensure a consistent temperature throughout the cabin and provide efficient window demisting, ensuring clear visibility and a comfortable atmosphere.

## PREMIUM SEATING FOR OPTIMAL SUPPORT

The Vi038-7 comes standard with an air suspension seat, fully adjustable and equipped with a headrest. This seat minimizes body tension and fatigue, offering superior support for a machine of this weight class, allowing operators to work longer hours with less strain.



# ADVANCED TECHNOLOGY FOR IMPROVED PERFORMANCES



## EFFICIENT ENGINE PERFORMANCE

The ViO38-7 is powered by Yanmar's 3TNV88-ESBV2 engine, delivering 18,5 kW at 2 200 rpm. This advanced engine combines fuel efficiency and low emissions, reflecting Yanmar's commitment to environmental sustainability. Key features include an ECU that optimizes RPM based on torque for fuel savings, an Auto-Deceleration system that reduces engine speed when hydraulic system idle for 4 seconds, and an Eco-Mode that lowers engine speed by 300 rpm to further enhance fuel efficiency.

## VIPPS HYDRAULIC SYSTEM

The ViO38-7 is equipped with the ViPPS (ViO Progressive 3 Pumps System) hydraulic system, featuring three hydraulic pumps: two variable displacement pumps and one gear pump. This setup provides a total maximum flow of 102.5 l/min. The ViPPS system integrates these pumps via a control valve to ensure smooth, simultaneous operation of all functions, even while traveling, for optimal speed, power, and balance.

## ENHANCED CYCLE TIME

With a travel speed of 4,5 km/h, the ViO38-7 reduces travel time and boosts efficiency for earth removal tasks while enabling faster movement on slopes. The digging cycle time has been improved by increasing the workgroup speed under load by 7%. The ViO38-7 additionally integrates the floating blade, as standard feature, for efficient leveling at the jobsite.

## IMPROVED ATTACHMENT USABILITY

Simultaneous operation of the first auxiliary circuit and the arm allows for efficient use of attachments, broadening the machine's functionality and performance. This feature makes the ViO38-7 compatible with a wide range of hydraulic tools, enhancing its versatility on the job site. An auxiliary circuit priority section has been added to the main control valve, upstream of AUX1 line, supporting attachments that are characterized by a continuous load request. An optional independant hydraulic line (deviation from AUX1 and routed on the digging arm) is available to operate a tilting function on a quick hitch, leaving AUX1 & AUX2 lines available for work tool hoses connection.





# SAFETY

## ROBUST CABIN PROTECTION

The Vi038-7 cabin is engineered with safety in mind, meeting ROPS (Roll-Over Protective Structure) certification and FOPS (Falling Object Protective Structure) Level 1 standards. This ensures that the operator is well-protected in various operating conditions, enhancing safety on the job site.

## COMPREHENSIVE BOOM AND ARM PROTECTION

The Vi038-7 offers exceptional protection for its blade, boom and arm cylinders. Each cylinder tube and rod is safeguarded by a durable spring-type steel plate, significantly reducing maintenance costs and extending the lifespan of the machine.

## ADVANCED LED LIGHTING

For safe and precise operation in low-light conditions, the Vi038-7 comes standard with LED lighting. The strategically placed LED light on the inner part of the boom ensures efficient illumination and enhances visibility during nighttime or dimly lit tasks.

## UPGRADED DIGITAL INTERFACE

The Vi038-7 features a 4,3-inch color display that provides clear, realtime information about the machine's status. The updated digital interface includes optional passcode engine security and offers userfriendly error indications in plain language.

## SUPERIOR VISIBILITY

The Vi038-7 is designed with large glass areas to maximize visibility of the blade, boom, and arm. Additionally, the rear-view camera, which comes standard (cabin version), provides enhanced rear visibility, further ensuring safe operation in all directions.

## SAFETY ENHANCEMENTS

The Vi038-7 is equipped with an orange seatbelt for increased safety and features optional enhancements like a seatbelt sensor and a green beacon for added visibility. A front polycarbonate protection shield is available as an option for the canopy, providing additional safety against debris and impact.



# SIMPLE MAINTENANCE ACCESS

The 4,3-inch color display integrates key information about maintenance, such as fuel consumption, fuel gauge, and coolant temperature, while also aiding maintenance scheduling and diagnostics with clear error messages and icons.

The machine is designed for effortless maintenance. The engine bonnet and right-hand side cover open easily, providing wide access to essential components like the air filter, compressor, radiator, battery, and fuel tank. Removable side panels and cabin floor offer convenient access to hydraulic parts. A flat floor mat simplifies cleaning.

# EQUIPMENT

## [ STANDARD EQUIPMENT ]

### PERFORMANCE

Engine 3TNV88-ESBV2 Yanmar diesel | Direct injection | Engine Control Unit (ECU) | Eco-Mode | Auto-Deceleration System | VIPPS Hydraulic system (ViO Progressive 3 Pump System) | AUX1 hydraulic line with proportional control and extension to arm end | Auto kickdown travel motors | 1 LED work light integrated under the boom | Long arm (1620 mm) | Floating blade.

### COMFORT AND EASE OF USE

4.3 inch. color LCD interface | Up to 5 work tool hydraulic flow presettings | Adjustable and reclining seat with fabric or vinyl cover, pneumatic suspension and headrest | Adjustable wrist support | Foot rests | Wide travel pedals | Windshield with 2 fully retractable parts | Sliding double right-side window | Transparent front roof window | Wiper | Windshield washer | Automatic ceiling lamp | Storage space in right console | Plastic & sealable document storage box | Coat hanger.

### SAFETY AND DURABILITY

ROPS & FOPS on cabin and canopy | Handrails | Safety lever | Orange seatbelt with retractor | Rear view camera on cabin version | 3 safety valves (arm, boom & blade) + overload warning | Evacuation hammer | 4 tie down points on track frames | 3 mirrors | Horn | Blade cylinder supply hose into two parts | Quick connector on battery terminal | Hoses protected by abrasion resistant sleeves | Lockable covers.

### MISCELLANEOUS

External hydraulic oil & fuel gauges | Toolkit | Grease gun | External hydraulic oil gauge.

## [ OPTIONAL EQUIPMENT ]

### EQUIPMENT AND PERFORMANCE

Engine programmable auto shutdown | Fuel/water separator sensor with warning in operator space | Steel crawlers | Rubber pads for steel crawlers | Independant tilt function hydraulic supply line (deviation from AUX1) | Drain line | Short arm (1370 mm) | AUX1 & AUX2 hydraulic lines with proportional control and extension to arm end | Clamshell bucket circuit | Hydraulic quick hitch supply line (150 bar) | Quick connectors | Additional counterweight (+160 kg) - 85 mm rear overhang | Bio oil | 2 front LED working lights (cabin and canopy) | 1 rear LED work light + 1 plugable LED flashing beacon (cabin and canopy) | 1 plugable LED flashing beacon (cabin and canopy) | Beacon light with magnetic base.

### COMFORT AND EASE OF USE

Air conditioning | Yanmar seat cover | Radio | Central greasing | Grease gun support bracket (cabin & canopy).

### SECURITY AND DURABILITY

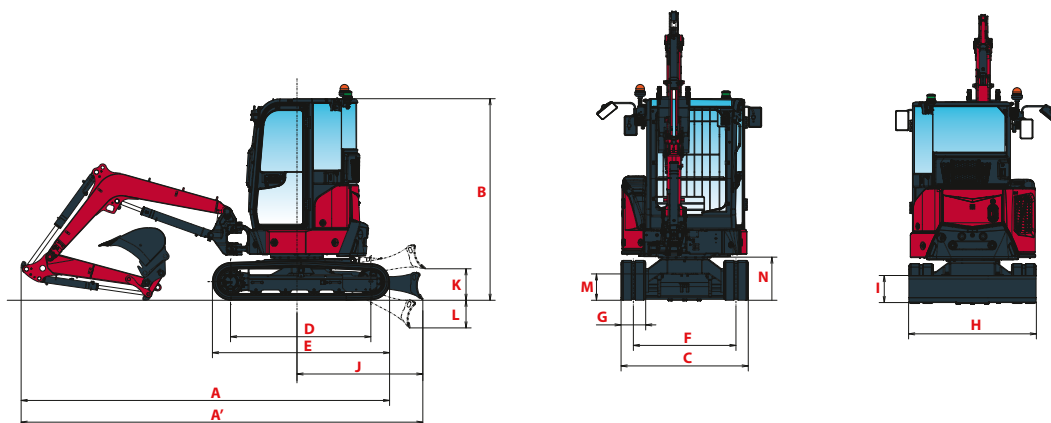
Seatbelt sensor with operator warning with or without green beacon | FOPS I front protection (cabin and canopy) | Removable battery cut-off switch | Yanmar anti-theft solutions : engine start pin code in LCD panel or coded engine start key | Various other anti-theft solutions | SA-R3 telematics solution | Travel alarm (beep or white noise).

## [ ATTACHMENTS ]

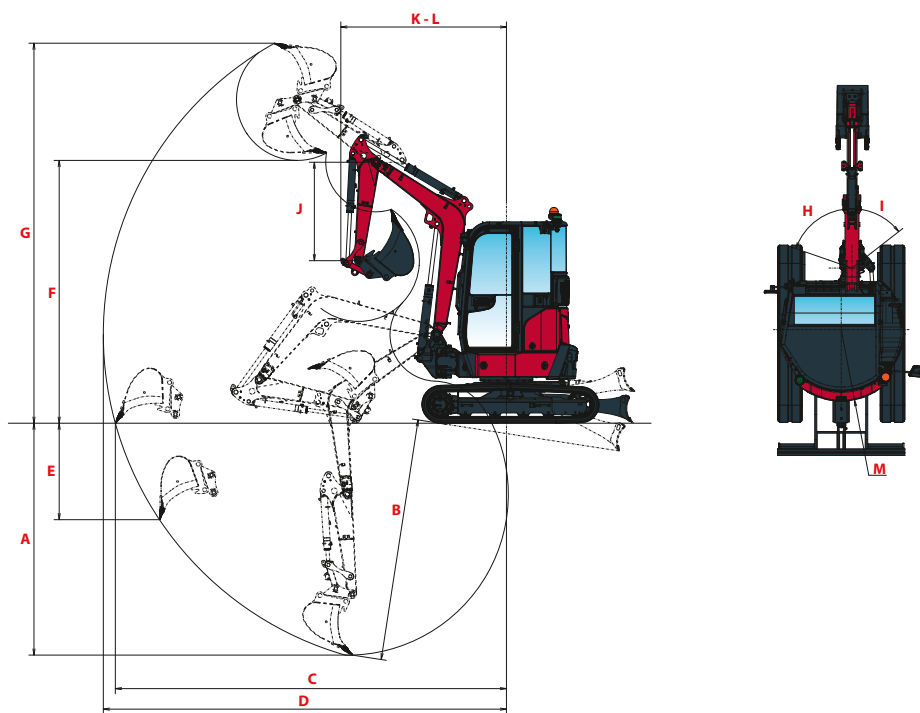
Yanmar gives you the attachment that fit your needs and match the safety standards in force in your country: mechanical quick coupler, hydraulic quick coupler, ditching bucket, swinging bucket, backhoe bucket, hydraulic breaker...



# DIMENSIONS



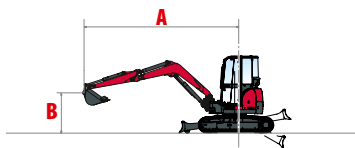
<b>A</b> Overall length	4755/4805* mm	<b>H</b> Overall blade width	1740 mm
<b>A'</b> Overall length with blade at the back	5310/5360* mm	<b>I</b> Overall blade height	385mm
<b>B</b> Overall height	2460 mm	<b>J</b> Blade distance	1685 mm
<b>C</b> Overall width	1740 mm	<b>K</b> Max. lifting height above the ground	435 mm
<b>D</b> Length of track on ground	1710 mm	<b>L</b> Max. lowering depth from the ground	370 mm
<b>E</b> Undercarriage length	2160 mm	<b>M</b> Minimum ground clearance	325 mm
<b>F</b> Lane	1440 mm	<b>N</b> Minimum ground clearance under upper frame	550 mm
<b>G</b> Track width	300 mm		



<b>A</b> Max. digging depth - Blade lifted	3125/3375* mm	<b>H</b> Boom swinging base to left	71°
<b>B</b> Max. digging depth - Blade lowered	3290/3535* mm	<b>I</b> Boom swinging base to right	52°
<b>C</b> Max. digging reach on ground	5150/5395* mm	<b>J</b> Arm length	1370/1620* mm
<b>D</b> Max. digging reach	5285/5525* mm	<b>K</b> Front turning radius	1985/2055* mm
<b>E</b> Max. vertical wall	1325/1565* mm	<b>L</b> Front turning radius with boom swing	1130/1150* mm
<b>F</b> Max. unloading height	3600/3775* mm	<b>M</b> Rear turning radius	870 mm
<b>G</b> Max. cutting height	5025/5215* mm	<b>M'</b> Rear turning radius with additional counterweight	955 mm

\*With long arm.

# LIFTING CAPACITY



Tipping load, rating over front



Tipping load, rating over side 90

## Short arm, standard counterweight

Cabin										Canopy									
Blade on ground/Blade above ground																			
A	Max.	4 m		3,5 m		3 m		2,5		Max.	4 m		3,5 m		3 m		2,5		
B																			
4 m	800*/800 810*/810*	-	-	-	-	670*/780*	795*/795*	-	-	800*/800* 800*/790*	-	-	-	-	635/555 680*/645*	-	-	-	-
3 m	515/505 780*/580	510/510 775*/585	645/640 760*/770*	755*/755* 760*/750*	-	-	-	485/485 770*/560*	490/- 765*/560	620/610 750*/740*	-	-	-	-	-	-	-	-	-
2 m	420/420 790*/485	500/500 820*/575	620/620 885*/720	810/800 1005*/1010 1190*/1185* 1195*/1190*	405/405 790*/465 475/470 810*/535 585/580 870*/670 770/775 970*/945 1005/1000 1140*/1115*														
1 m	395/390 820*/445	490/480 925*/540	585/580 1070*/665	725/720 1310*/830 935/925 1725*/1105 385/385 820*/435 465/465 920*/520 565/565 1060*/635 705/700 1295*/800 895/895 1685*/1040															
0 m	410/410 860*/475	470/460 985*/530	555/555 1175*/640	685/675 1440*/790 870/870 1845*/1030 395/395 865*/450 445/445 970*/500 525/525 1160*/600 640/645 1425*/745 815/815 1795*/955															
-1 m	490/485 890*/550	-	-	565/555 1085*/640 680/680 1320*/790 885/870 1655*/1035 455/455 905*/620	-	-	-	-	-	520/520 1080*/595 630/630 1330*/730 810/810 1635*/945									
-2 m	835*/725 815*/810*	-	-	-	-	-	-	1040*/890 1035*/930*	690/695 875*/760	-	-	-	-	-	-	-	-	835/835 1085*/1095	

## Short arm, additional counterweight

Cabin										Canopy									
Blade on ground/Blade above ground																			
A	Max.	4 m		3,5 m		3 m		2,5		Max.	4 m		3,5 m		3 m		2,5		
B																			
4 m	800*/800* 810*/810*	-	-	-	-	780*/780*	795*/795*	-	-	800*/800* 800*/790*	-	-	-	-	690/600 680*/645	-	-	-	-
3 m	580/570 780*/640	580/605 775*/675	720/725 760*/865	755*/755* 760*/750*	-	-	-	530/525 770*/600 535/- 765*/605	860/660 750*/740*	-	-	-	-	-	-	-	-	-	-
2 m	485/485 790*/545	570/595 820*/665	695/705 885*/815	920/915 1005*/1140 1190*/1190* 1195*/1195*	440/435 790*/495 515/505 810*/580 810/630 870*/725 840/840 970*/945* 1095/1085 1140*/1115*														
1 m	460/455 820*/505	560/560 925*/630	660/665 1070*/760	835/835 1310*/960 1060/1050 1725*/1255 420/420 820*/465 505/505 910*/565 785/610 1060*/690 765/760 1295*/865 975/970 1685*/1115															
0 m	475/475 860*/535	540/550 985*/620	630/640 1175*/735	795/790 1440*/790 995/995 1845*/1180 430/425 865*/480 480/480 970*/540 735/570 1160*/650 700/695 1425*/805* 890/885 1795*/1025															
-1 m	555/550 890*/610	-	-	640/640 1085*/735 790/795 1320*/920 1010/995 1655*/1185 495/490 905*/560	-	-	-	-	-	720/560 1080*/640 685/685 1330*/790 880/875 1635*/1015									
-2 m	835*/790 815*/815*	-	-	-	-	-	-	1040*/1015 1035*/1035*	750/750 875*/820	-	-	-	-	-	-	-	-	910/905 1085*/1095	

## Long arm, standard counterweight

Cabin										Canopy									
Blade on ground/Blade above ground																			
A	Max.	4 m		3,5 m		3 m		2,5		Max.	4 m		3,5 m		3 m		2,5		
B																			
3 m	435/430 725/490	515/505 695*/665*	675*/670* 675*/660*	-	-	-	-	-	-	405/400 715*/450 485/480 695*/535 670*/665* 670*/655*	-	-	-	-	-	-	-	-	-
2 m	370/365 740/410	505/500 790*/565	635/620 855*/820	920*/915* 955*/930 1095*/1100* 1100*/1065*	345/340 735*/380 475/465 780*/525 600/585 835*/670 895*/890* 920*/895* 1100*/1095* 1070*/1060*														
1 m	350/350 770/390	485/480 935*/540	600/595 1085*/675	775/765 1340*/875 1020/1000 1785*/1160 320/320 775*/355 445/440 930*/500 560/550 1090*/625 715/705 1330*/815 950/935 1780*/1105															
0 m	360/355 815/400	465/460 1025*/515	570/560 1225*/635	705/695 1540*/805 910/895 2005*/1045 335/325 815*/370 430/420 1025*/480 525/515 1230*/590 655/650 1545*/750 860/840 1980*/960															
-1 m	415/410 850/465	455/445 955*/510	555/550 1190*/625	705/690 1470*/770 915/900 1905*/1045 385/380 855*/435 420/415 965*/475 510/505 1200*/585 640/630 1495*/735 840/820 1915*/980															
-2 m	580/575 830/670	-	-	-	-	685/685 1060*/810 950/940 1395*/1055 535/535 830*/630	-	-	-	-	-	-	-	-	635/620 1055*/750 830/820 1395*/985				

## Long arm, additional counterweight

Cabin										Canopy									
Blade on ground/Blade above ground																			
A	Max.	4 m		3,5 m		3 m		2,5		Max.	4 m		3,5 m		3 m		2,5		
B																			
3 m	490/485 725*/540	660*/655* 695*/665	675*/670* 675*/660*	-	-	-	-	-	-	465/460 715*/510 535/545 695*/680* 670*/665* 670*/655*	-	-	-	-	-	-	-	-	-
2 m	415/415 740*/465	570/565 790*/635	810*/805* 855*/820*	920*/915* 955*/930* 1095*/1100* 1100*/1065*	400/395 735*/430 545/535 780*/585 675/670 835*/830 895*/890* 920*/895* 1100*/1095* 1070*/1060*														
1 m	395/390 770*/445	540/535 935*/605	665/660 1085*/760	855/850 1340*/980 1340*/1110 1785*/1310 380/375 775*/410 525/515 930*/570 650/640 1090*/715 820/810 1330*/920 1085/1065 1780*/1240															
0 m	410/405 815*/460	520/515 1025*/590	635/630 1225*/730	800/785 1540*/925 1540*/1000 2005*/1170 395/385 815*/425 505/495 1025*/550 615/600 1230*/680 765/750 1545*/860 1000/975 1980*/1135															
-1 m	470/470 850*/535	515/510 955*/585	610/610 1190*/715	755/750 1470*/905 1470*/955 1905*/1175 440/445 855*/495 485/480 965*/535 595/590 1200*/660 735/720 1495*/830 960/930 1915*/1080															
-2 m	660/655 830*/830*	-	-	-	-	765/755 1060*/1050* 1060*/970 1395*/1320*	635/620 830*/710	-	-	-	-	-	-	-	750/735 1055*/840 950/940 1395*/1105				

[ The data in this table represents the lifting capacity in accordance with IOS 10567. They do not include the weight of the bucket and correspond to 75% of the maximum static tipping load of the 87% of the hydraulic lifting capacity. Data marked with \* are the hydraulic limits of the lifting force. ]



# TECHNICAL SPECIFICATIONS

## [ WEIGHT +/- 2% (EN STANDARDS) ]

	Transport weight	Operating weight	Ground pressure (operating weight)
Canopy version/Rubber crawlers	3 405 kg	3 585 kg	0,330 kgf/cm <sup>2</sup>
Canopy version/Steel crawlers	3 500 kg	3 680 kg	0,330 kgf/cm <sup>2</sup>
Cabin version/Rubber crawlers	3 530 kg	3 710 kg	0,340 kgf/cm <sup>2</sup>
Cabin version/Steel crawlers	3 625 kg	3 805 kg	0,350 kgf/cm <sup>2</sup>
With additional counterweight	+ 160 kg		-


## [ ENGINE ]

Type	Yanmar Stage V 3TNV88-ESBV2
Fuel	Diesel
Net Power	18,5 kW/24,8 HP at 2200 rpm
Gross Power	18,9 kW/25,3 HP at 2200 rpm
Displacement	1,642 liters
Maximum torque	85,5 – 94,5 N.m at 1320 rpm
Cooling	Water-cooling
Starter	12 V - 1,7 kW
Battery	12 V – 55 Ah
Alternator	12 V – 55 A

## [ HYDRAULIC SYSTEM ]

Maximum pressure	221 bar
1 double variable displacement piston pump	2 x 37,9 l/min
1 gear pump	26,7 l/min
1 gear pump for pilot line	10,04 l/min

AUX	Measured data at max engine speed	
	Pressure	Flow
1	0 – 160 bar	65,2 - 42,7 l/min
2	0 – 170 bar	38,4 - 32,5 l/min
Hammer	120 bar	55 l/min

 Oil flow decreases as the pressure increases.

## [ PERFORMANCE ]

Travel speed (low/high)	2,6/4,5 km/h
Rotation speed	9,2 rpm
Digging force (short arm / long arm)	20,8 kN/18,9 kN
Digging force (bucket)	32,8 kN
Gradability	30°
Noise Level(2000/14/CE&2005/88/CE)	LwA: 93 dBA/LPA: 79 dBA

## [ UNDERCARRIAGE ]

Number of top rollers	1
Number of bottom rollers	4
Track tensioning system	Grease adjuster

## [ CAPACITIES ]

Fuel tank	44 l
Coolant	4,2 l
Engine oil	6,7 l
Hydraulic circuit	53,9 l
Hydraulic tank	30,2 l

## MAINTENANCE FREQUENCY

[ Change engine oil and filter: **50 hours (1st)/500 hours (2nd)** ] [ Change fuel filter: **250 hours** ] [ Change hydraulic oil filter: **500 hours** ]  
 [ Change hydraulic oil return filter: **50 hours (1st)/500 hours (2nd)** ] [ Change cooling fluid: **2000 hours** ]



**YANMAR**



Yanmar Compact Equipment EMEA

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