



YANMAR

SV20VT

MINI EXCAVATOR



Operating weight (canopy / cabin)

1880 / 1970 kg

Engine

3TNV76-QBVA

Digging force (short arm / long arm)

11,4 kN / 9,3 kN

Digging force (bucket)

16,7 kN

OPTIMIZED PERFORMANCE FOR THE TOUGHEST APPLICATIONS





INNOVATIVE DESIGN

Designed to excel in even the most demanding environments, the SV20vT is reliable, robust and rental tough. Thanks to the upper positioning of the boom cylinder, hydraulic hoses routed inside the boom and bucket/arm cylinder guards fitted as standard, operators are guaranteed class-leading protection to minimize unnecessary downtime.



POWERFUL ENGINE

Combining exceptional performance with low fuel consumption, the SV20vT adopts Yanmar's state-of-the-art, Stage V-compliant, mechanically-controlled 3-cylinder indirect injection engine from its globally-acclaimed TNV series.



UNMATCHED STABILITY

With an operating weight of 1,970kg, variable undercarriage (980-1,320mm) and optional additional counterweight (50kg), the SV20vT ensures optimum stability and outstanding flexibility to suit every application. Available with either short or long digging arms and levelling blades, operators benefit from versatility and adaptability.



CLASS-LEADING VERSATILITY

The SV20vT has been designed with simplicity and useability firmly in mind. An optional fourth proportional and adjustable hydraulic circuit, alongside optional quick hitch supply line, enable the easy operation of an extended range of work tools.



ON-SITE SAFETY

To maximize safety on site, the SV20vT meets the highest levels of ROPS, TOPS and FOPS I certification for canopy and cabin. Alongside boom LED work lights and an orange seatbelt as standard, operators can specify buckle sensor, orange/green beacons, travel alarms and a polycarbonate front shield (canopy model) as optional extras to ensure unparalleled protection.



UNIQUE HYDRAULICS

The optimized combination of speed, smoothness and power, the SV20vT adopts Yanmar's ViPPS hydraulic system. Cumulating the flow of separate pumps, the configuration allows simultaneous operation of attachments, even while travelling.



EXCEPTIONAL PRODUCTIVITY

Compact, durable, reliable and dependable, the SV20vT offers ultimate productivity in a highly compact package. Clever design ensures a long service life, low fuel consumption and easy maintenance access – resulting in a highly affordable total cost of ownership.



POWERFUL, PRODUCTIVE AND COMPACT

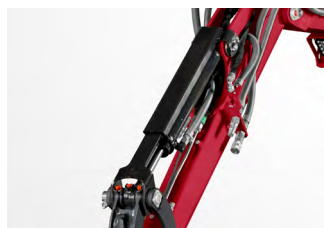
Perfectly suited to earthmoving applications in tight urban job sites or residential properties, the SV20vr is powerful, compact and highly versatile. Thanks to a short turning radius at both the front and rear, alongside a wide boom swing amplitude, operators benefit from outstanding performance and class-leading capability.

Compact dimensions and a transport weight of 1,750kg/1,840kg (canopy/cabin) mean the SV20vr can be easily moved between work sites, along with buckets and a work tool, on a standard 3.5 tons GVW trailer. Four tie-down points on the track frames (standard) and four on the turning frame (optional) facilitate transport preparation.



ROBUST, RELIABLE AND DEPENDABLE

Designed to excel, the SV20vr benefits from numerous features to optimize productivity and guarantee a low total cost of ownership. From the upper positioning of the boom cylinder and hydraulic hoses routed inside the boom itself, to bucket/arm cylinder guards fitted as standard, operators are guaranteed class-leading protection to minimize unnecessary downtime.



EXTENDED WORKING RANGE

Adaptable, versatile and flexible to suit precise operator requirements, the SV20vr is the perfect earthmoving solution. With long/short arm and blade configurations, alongside a wide boom swing amplitude (further extending working range) and the option of an additional 50kg counterweight, operators benefit from unmatched efficiency, complete flexibility and impressive excavator performance.

EXTENDABLE UNDERCARRIAGE

The extendable undercarriage, innovative design with shaped steel and reduced clearance between moving parts to prevent soil build-up, substantially improves the operating stability of SV20vr. Fully adaptable to deliver the task in hand.



Extended undercarriage:
1 380 mm



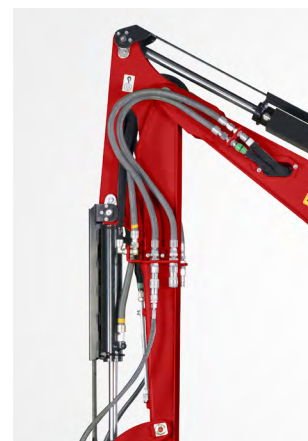
Retracted undercarriage :
980 mm

OUTSTANDING PERFORMANCE



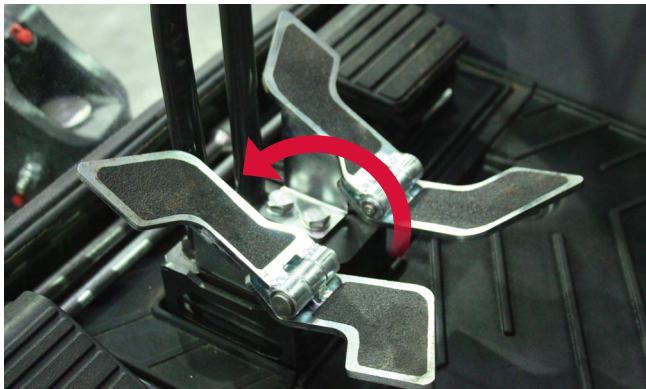
Blending stylish design with unmatched build quality, the SV20vr delivers superior performance in a surprisingly compact package. Operators benefit from a digging force of 11.4/16.7kN (short arm/bucket) and a traction force of 12.9kN on the first gear. The machine will automatically shift from 2nd to 1st in function of the load (AKD). The travelling speeds available are either 2.4 or 4.4km/h (with a selector on the blade operation lever and standard auto kickdown travel motors providing upgraded fingertip efficiency). A track frame layout, featuring three bottom rollers, ensures a comfortable and stable ride for the operator.

Powered by Yanmar's ViPPS hydraulic system, the model boasts a double variable displacement piston pump and two gear pumps (max flow and pressure respectively 52.4 and 220 bar). In addition, the SV20vr comes fitted with a standard proportional auxiliary hydraulic line to power breakers or augers, delivering a flow of 28 l/min at 120 bars pressure..





STYLISH DESIGN, ERGONOMIC LAYOUT



Designed to improve productivity and maximise on-site efficiency, the SV20vr perfectly blends stylish design and user-friendly layout. The cab provides outstanding 360° visibility of the working area, while ergonomically designed control pedals, levers, switch boards and an LCD control interface ensure maximum practicality.

A fully-adjustable seat (premium version as an option) guarantees operator comfort, while excellent air circulation further improves the excavating experience.

BEST-IN-CLASS SAFETY



As with every model in the Yanmar range, safety has been prioritized in the design and development of the SV20vr. Alongside achieving ROPS, TOPS and FOPS I certification for canopy and cabin, the excavator features a whole host of safety-critical technologies to keep the operator safe on site.

Boom LED work light and an orange seatbelt are fitted as standard, while operators can specify a buckle sensor, orange/green beacons, travel alarms and a polycarbonate front protective shield (canopy model) as optional extras. Depending on specific jobsite requirements, customers can fully customize their machine to achieve unmatched levels of safety and productivity.

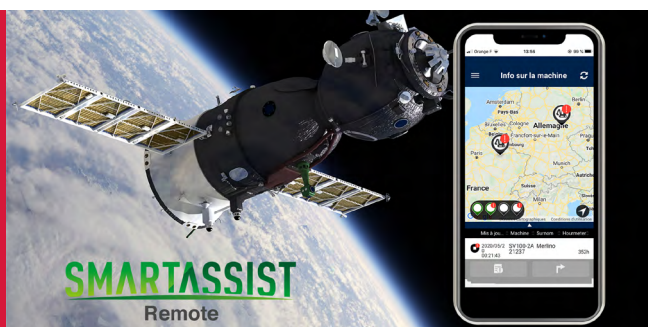




EASY MAINTENANCE

To minimize the time taken to deliver daily checks and scheduled maintenance, the SV20vr features a number of clever design features. Alongside a wide engine compartment hood offering easy access to the powertrain, the side panels and cabin floor are straightforward to dis-assemble, providing instant access to hydraulic components, the fuel/hydraulic tanks and the radiator.

The battery and fuse box are located in a lockable compartment under the operator's seat, further maximizing safety.



SMARTASSIST REMOTE

SmartAssist Remote is Yanmar's next-generation fleet management system. Harnessing the latest telematics technology, equipment location and status is reported in real time. This option provides total control and allows fleet managers to manage their assets remotely (via a PC or smartphone).

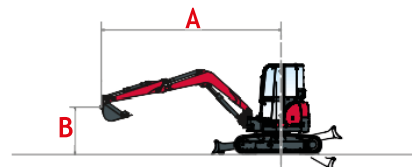
LIFTING CAPACITY



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			3 m		2,5 m		2 m		Max			3 m		2,5 m		2 m	
B	(A=)									(A=)								
3 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,5 m	2.45	480 / 480	480 / 410	-	-	-	-	-	-	2.45	405 / 405	480 / 390	-	-	-	-	-	-
2 m	2.94	340 / 340	470 / 325	-	-	440 / 440	440 / 440	-	-	2.94	320 / 320	470 / 310	-	-	440 / 440	440 / 440	-	-
1,5m	3.15	305 / 305	460 / 290	335 / 335	475 / 325	510 / 510	510 / 430	545 / 545	545 / 545	3.15	290 / 290	460 / 275	320 / 320	475 / 305	425 / 425	510 / 410	545 / 545	545 / 545
1m	3.34	285 / 285	450 / 275	330 / 330	500 / 320	430 / 430	605 / 420	595 / 595	810 / 585	3.34	270 / 270	450 / 260	315 / 315	500 / 300	410 / 410	605 / 395	570 / 570	810 / 555
0,5m	3.39	270 / 270	420 / 260	320 / 320	515 / 310	415 / 415	665 / 405	570 / 570	940 / 555	3.39	255 / 255	420 / 245	305 / 305	515 / 295	395 / 395	665 / 380	540 / 540	940 / 525
0 m	3.33	275 / 275	415 / 265	315 / 315	500 / 305	405 / 405	655 / 390	555 / 555	910 / 540	3.33	260 / 260	415 / 250	300 / 300	500 / 285	385 / 385	655 / 370	525 / 525	910 / 510
-0,5 m	3.19	300 / 300	415 / 290	315 / 315	445 / 300	400 / 400	600 / 385	550 / 550	820 / 535	3.19	285 / 285	415 / 270	295 / 295	445 / 285	380 / 380	600 / 365	520 / 520	820 / 505
-1 m	2.94	345 / 345	410 / 330	-	-	400 / 400	510 / 390	550 / 550	695 / 535	2.94	325 / 325	410 / 315	-	-	380 / 380	510 / 365	525 / 525	695 / 505
-1,5 m	2.48	375	375	-	-	-	-	525	525	2.48	375 / 375	375 / 375	-	-	-	-	525 / 525	525 / 525

Short arm, additional counterweight

Cabin										Canopy									
Blade on ground/Blade above ground																			
A	Max		3 m		2,5 m		2 m		Max		3 m		2,5 m		2 m				
B	(A=)									(A=)									
3 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
2,5 m	2.95	480 / 480	480 / 480	-	-	-	-	-	-	2.95	480 / 480	480 / 480	-	-	-	-			
2 m	3.28	365 / 365	470 / 355	-	-	440 / 440	440 / 440	-	-	3.28	350 / 350	470 / 335	-	-	440 / 440	440 / 440			
1,5m	3.74	330 / 330	460 / 320	365 / 365	475 / 355	510 / 510	510 / 510	545 / 545	545 / 545	3.74	315 / 315	460 / 300	345 / 345	475 / 335	510 / 510	510 / 510			
1m	3.64	310 / 310	450 / 300	355 / 355	500 / 345	465 / 465	605 / 455	645 / 645	810 / 630	3.64	295 / 295	450 / 285	340 / 340	500 / 330	445 / 445	605 / 430			
0,5m	3.67	290 / 290	420 / 280	350 / 350	515 / 340	450 / 450	665 / 440	615 / 615	940 / 600	3.67	280 / 280	420 / 265	335 / 335	515 / 320	430 / 430	665 / 415			
0 m	3.67	300 / 300	415 / 290	345 / 345	500 / 330	440 / 440	655 / 430	600 / 600	910 / 585	3.67	285 / 285	415 / 275	325 / 325	500 / 315	420 / 420	655 / 405			
-0,5 m	3.58	325 / 325	415 / 315	340 / 340	445 / 330	435 / 435	600 / 425	595 / 595	820 / 580	3.58	310 / 310	415 / 300	325 / 325	445 / 310	415 / 415	600 / 400			
-1 m	3.26	410 / 410	410 / 410	-	-	435 / 435	510 / 425	595 / 595	695 / 585	3.26	410 / 410	410 / 345	-	-	415 / 415	510 / 400			
-1,5 m	2.82	375 / 375	375 / 375	-	-	-	-	525 / 525	525 / 525	2.82	375 / 375	375 / 375	-	-	-	525 / 525			

Long arm, standard counterweight

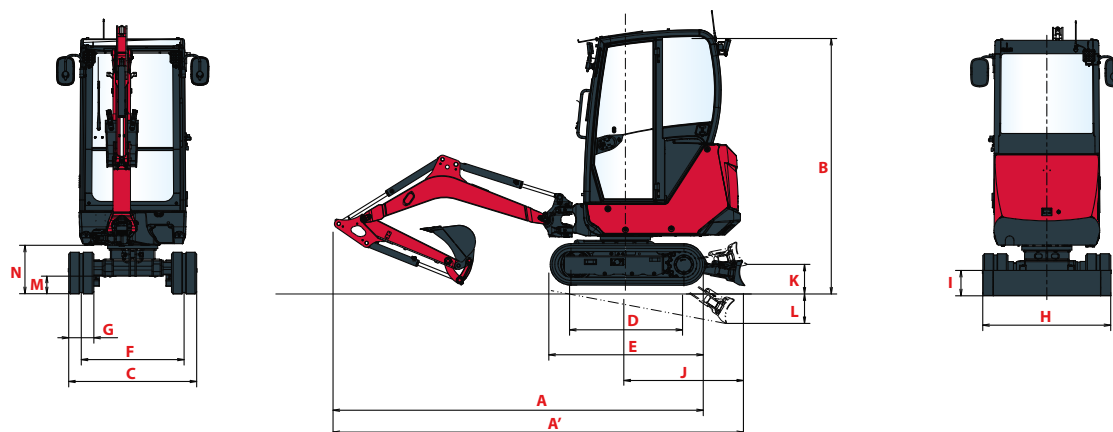
Cabin										Canopy							
Blade on ground/Blade above ground																	
A	Max	3 m		2,5 m		2 m		Max	3 m		2,5 m		2 m				
B	(A=)									(A=)							
3 m	-	385 / 385	385 / 385	-	-	-	-	-	-	-	385 / 385	385 / 385	-	-	-	-	
2,5 m	2.45	340 / 340	420 / 315	340 / 340	420 / 315	-	-	-	-	2.45	325 / 325	420 / 315	325 / 325	420 / 315	-	-	-
2 m	2.94	295 / 295	410 / 270	390 / 390	390 / 320	-	-	-	-	2.94	280 / 280	410 / 265	330 / 330	390 / 315	-	-	-
1,5m	3.15	265 / 265	400 / 245	340 / 340	420 / 315	-	-	-	-	3.15	250 / 250	400 / 240	325 / 325	420 / 310	405 / 405	405 / 405	-
1m	3.34	250 / 250	395 / 230	330 / 330	465 / 305	435 / 435	530 / 405	625 / 625	615 / 615	3.34	235 / 235	395 / 225	315 / 315	465 / 305	415 / 415	530 / 400	625 / 625
0,5m	3.39	245 / 245	390 / 225	325 / 325	500 / 295	420 / 420	630 / 385	575 / 575	880 / 535	3.39	235 / 235	390 / 220	305 / 305	500 / 295	400 / 400	630 / 385	550 / 550
0 m	3.33	245 / 245	370 / 220	315 / 315	505 / 290	405 / 405	660 / 375	555 / 555	935 / 510	3.33	230 / 230	370 / 220	300 / 300	505 / 285	385 / 385	660 / 370	525 / 525
-0,5 m	3.19	260 / 260	375 / 240	310 / 310	480 / 285	395 / 395	630 / 365	545 / 545	875 / 500	3.19	245 / 245	375 / 235	290 / 290	480 / 280	375 / 375	630 / 360	515 / 515
-1 m	2.94	285 / 285	355 / 260	310 / 310	410 / 280	395 / 395	560 / 360	540 / 540	770 / 500	2.94	270 / 270	355 / 255	290 / 290	410 / 280	375 / 375	560 / 360	515 / 515
-1,5 m	2.48	350 / 350	350 / 350	-	-	445 / 445	445 / 365	630 / 630	630 / 505	2.48	350 / 350	350 / 350	-	-	375 / 375	445 / 360	520 / 520

Long arm, additional counterweight

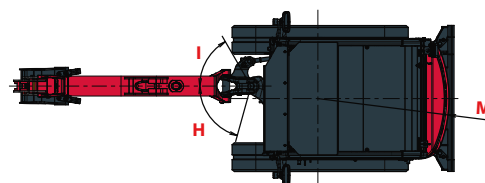
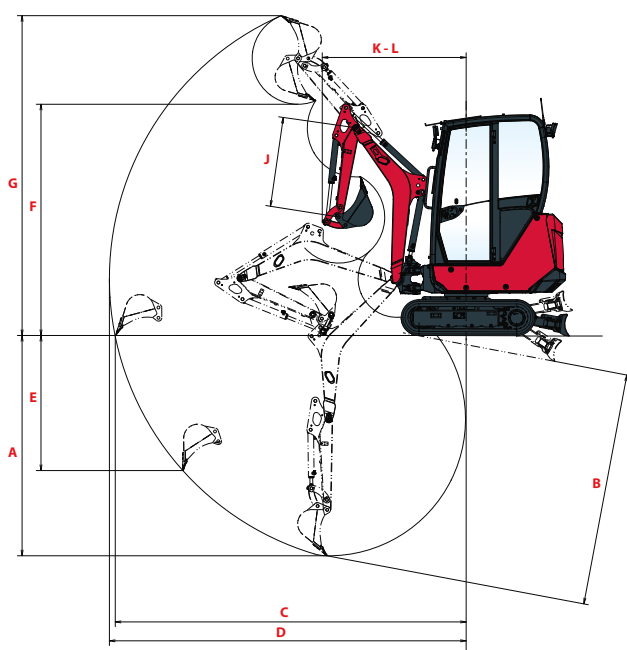
Cabin										Canopy									
Blade on ground/Blade above ground																			
A	Max	3 m		2,5 m		2 m		Max	3 m		2,5 m		2 m						
B	(A=)									(A=)									
3 m	2,38	385 / 385	385 / 385	-	-	-	-	-	-	2,38	385 / 385	385 / 385	-	-	-	-	-		
2,5 m	2,95	420 / 420	420 / 345	420 / 420	420 / 345	-	-	-	-	2,95	355 / 355	420 / 340	355 / 355	420 / 340	-	-	-		
2 m	3,28	520 / 520	410 / 295	590 / 590	390 / 390	-	-	-	-	3,28	305 / 305	410 / 290	390 / 390	390 / 390	-	-	-		
1,5m	3,61	290 / 290	400 / 265	420 / 265	420 / 340	-	-	-	-	3,61	275 / 275	400 / 265	350 / 350	420 / 340	405 / 405	405 / 405	-		
1m	3,61	270 / 270	395 / 250	360 / 360	465 / 335	530 / 530	530 / 440	625 / 625	615 / 615	3,61	260 / 260	395 / 250	345 / 345	465 / 330	450 / 450	530 / 435	625 / 625		
0,5m	3,64	270 / 270	390 / 245	350 / 350	500 / 325	455 / 455	630 / 420	625 / 625	880 / 580	3,64	255 / 255	390 / 245	335 / 335	500 / 320	435 / 435	630 / 420	595 / 595		
0 m	6,61	265 / 265	370 / 245	340 / 340	505 / 315	440 / 440	660 / 405	600 / 600	935 / 555	3,61	250 / 250	370 / 240	325 / 325	505 / 315	420 / 420	660 / 405	570 / 570		
-0,5 m	3,54	285 / 285	375 / 260	335 / 335	480 / 310	430 / 430	630 / 400	590 / 590	875 / 545	3,54	270 / 270	375 / 260	320 / 320	480 / 310	410 / 410	630 / 395	560 / 560		
-1 m	3,27	355 / 355	355 / 285	335 / 335	410 / 310	430 / 430	560 / 395	590 / 590	770 / 545	3,27	295 / 295	355 / 280	320 / 320	410 / 305	405 / 405	560 / 395	560 / 560		
-1,5 m	2,82	350 / 350	350 / 350	-	-	445 / 445	445 / 445	630 / 630	630 / 630	2,82	350 / 350	350 / 350	-	-	445 / 445	445 / 445	630 / 630		

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

DIMENSIONS



A Overall length	3 540 / 3 540 mm	G Track width	230 mm
A' Overall length with blade at the back	3 925 / 3 925 mm 4 205 / 4 205 mm*	H Overall blade width	980 / 1 320 mm***
B Overall height	2 325 / 2 345 mm**	I Overall blade height	235 mm
C Overall width	980 / 1 320 mm***	J Blade distance	1 120 / 1 405 mm*
D Length of track on ground	1 185 mm	K Max. blade height above the ground	255 / 360 mm*
E Undercarriage length	1 560 mm	L Max. blade depth	300 / 410 mm*
F Lane	750 / 1 090 mm***	M Minimum ground clearance	160 mm
		N Ground clearance under counterweight	440 mm



Long blade / long arm configuration

A Max. digging depth – Blade lifted	2 420 / 2 710 mm	G Max. cutting height	3 485 / 3 700 mm
B Max. digging depth – Blade lowered	2 565 / 2 850 mm 2 575 / 2 865 mm*	H Boom swinging base to left	75°
C Max. digging reach on ground	3 855 / 4 135 mm	I Boom swinging base to right	60°
D Max. digging reach	3 910 / 4 185 mm	J Arm length	960 / 1 250 mm
E Max. vertical wall	1 415 / 1 650 mm	K Turning radius	1 510 / 1 550 mm
F Max. unloading height	2 605 / 2 815 mm	L Turning radius with boom swing	850 / 875 mm
		M Rear turning radius	1 060 / 1 130 mm

Short arm / **Long arm**

* Short blade / Long blade

** Canopy / Cabin

*** Retracted undercarriage / Extended undercarriage

TECHNICAL SPECIFICATIONS

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

	Canopy		Cabin	
Operating weight (rubber tracks - with operator, quick hitch & bucket)	1 880 kg	0,32 kgf/cm ²	1 970 kg	0,33 kgf/cm ²
Transport weight (rubber tracks - without quick hitch & bucket)	1 750 kg	0,29 kgf/cm ²	1 840 kg	0,31 kgf/cm ²

[ENGINE]

Type	3TNV76-QBVA
Regulation	Stage V
Fuel	Diesel
Net power	13,1 kW (at 2100 rpm)
Gross power	13,5 kW (at 2100 rpm)
Displacement	1,116 liter
Maximum torque	63,4 – 69,2 N.m (1600 +/- 150 rpm)
Cooling	Water-cooling
Starter	12 V - 1,4 kW
Battery	12 V – 45 Ah
Alternator	12 V – 40 A

[HYDRAULIC SYSTEM]

Maximum pressure	220 bar
1 double variable displacement piston pump	2x17,85 l/min
1 gear pump	16,8 l/min
1 gear pump	9,45 l/min

PTO	Measured data at max. engine speed	
	Pressure	Oil flow
1	0 – 150 bar	36 – 22,5 l/min
2	0 – 200 bar	20 – 16,6 l/min

 Oil flow decreases as the pressure increases

[PERFORMANCE]

Travel speed (Low / High)	2,4 / 4,4 km/h
Rotation speed	10 rpm
Digging force (Short arm / Long arm)	11,4 kN / 9,3 kN
Digging force (European bucket)	16,7 kN
Traction force (1st speed / 2nd speed)	12,9 kN / Auto kickdown
Gradeability (climbing ability)	30°
Noise level (2000/14/CE & 2005/88/CE)	LwA : 91 dBA / LpA : 83 dBA

[UNDERCARRIAGE]

Number of slide shoe plate	1
Number of bottom rollers	3
Track tensioning system	Grease adjuster

[CAPACITIES]

Fuel tank	27 liters
Coolant	4,2 liters
Engine oil	3,4 liters
Hydraulic circuit (including hydraulic tank)	34,3 liters
Hydraulic tank	19,5 liters

[MAINTENANCE FREQUENCY]

[Change engine oil and filter: **500 hours**] [Change fuel filter: **250 hours**] [Change hydraulic oil filter: **500 hours**] [Change hydraulic oil: **1000 hours**] [Change hydraulic oil return filter: **500 hours**] [Change cooling fluid: **2000 hours**]

EQUIPMENT

[STANDARD EQUIPMENT]

PERFORMANCE

3TNV76-QBVA Yanmar diesel engine | Stage V compliant | Indirect injection | Air filter clogging indicator | Water separator | Long arm (1 250 mm) | Extendable undercarriage (980-1 320 mm) | Auto kickdown travel motors | Blade with short lifting arms (615 mm) | 3rd auxiliary proportional hydraulic line with joystick control | 2nd travel speed | 1 LED work light on the boom side.

COMFORT & EASE OF USE

LCD operator interface | Heating system (cabin) | Fabric/skai covered, adjustable and reclining seat with medium backrest | Adjustable armrests | Retractable front upper window | Right side sliding window | Transparent front roof area | 1 x 12V electric supply + 2 x 5V USB charging ports | Cup holder | Lockable document box.

SAFETY AND DURABILITY

ROPS / TOPS / FOPS I protection rating canopy & cabin | Access handrails | Orange seatbelt | Rear view camera on cabin version | Evacuation hammer | Support bracket for fire extinguisher | Boom cylinder upper position | Hydraulic hoses routed inside the boom | 4 tie down points on the undercarriage | Bucket, arm and blade cylinder guards.

MISCELLANEOUS

Toolkit | Grease pump | Blue quick connector on battery terminal.

[OPTIONAL EQUIPMENT]

PERFORMANCE

Short arm (960 mm) | Blade with long lifting arms (891 mm) | 4th auxiliary proportional and adjustable hydraulic line | Hydraulic quick hitch supply line | 1/2 hydraulic circuit (clamshell bucket line) | Flat face hydraulic quick couplers | 2 additional front LED work lights | 1 additional rear LED work light | 1 pluggable LED orange flashing beacon | Additional counterweight (+ 50kg) | Special paint.

COMFORT & EASE OF USE

Premium fabric/skai covered, adjustable and reclining seat with high backrest | Left and right mirrors | Large travel pedals | Radio (AM/FM) | Greasing pump bracket.

SAFETY AND DURABILITY

Bucket and arm cylinders protection | Safety valves for lifting applications | Seatbelt sensor (visual/sound warning) with or without pluggable LED green flashing beacon | Front polycarbonate operator protection shield (canopy) | 4 additional tie down points on the turning frame | Variety of anti-theft systems | Travel alarms | FOPS I front protection in option (cabin/canopy).

MISCELLANEOUS

Engine auto idle system | Internal/external battery cut-off removable handles (plastic/steel) | SmartAssist Remote.

[ATTACHMENTS]

We offer a range of factory fitted attachments to maximize the versatility of your mini excavator. Yanmar offers selected mechanical and hydraulic quick couplers, Powertilt, digging buckets, ditch cleaning buckets, rippers and breakers.



YANMAR



Yanmar Compact Equipment EMEA

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