



YANMAR

Vi033-7

MINI-EXCAVATOR



Operating weight

3 265 kg (canopy)/3 390kg (cabin)

Engine gross power

18,9 kW at 2 200 rpm

Digging force (short arm/long arm)

18,64 kN/16,84 kN

Digging force (bucket)

30,69 kN

EXCAVATING EXCELLENCE IN TIGHT SPACES





COMPACT SOLUTION

The ViO33-7 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, complemented by new travel pedals for intuitive maneuvering. The ViO33-7 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 ViO33-7 has the VIPPS hydraulic system and is equipped with hydraulic quick hitch supply lines. Both standard auto deceleration and Eco modes ensure fuel saving & carbon footprint reduction over the operation time.



HIGH PERFORMANCE

The ViO33-7 delivers excellent efficiency with improved dumping height and clearing ability, increased swing angle and faster traveling.



ENHANCED SAFETY FEATURES

The ViO33-7 ensures operator safety with ROPS, TOPS and FOPS Level 1 certification. It features durable boom, arm and blade cylinder protections, advanced LED lighting for low-light conditions, and 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 in option.

A SMART AND COMPACT JOBSITE SOLUTION



COMPACT AND VERSATILE DESIGN

The ViO33-7 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

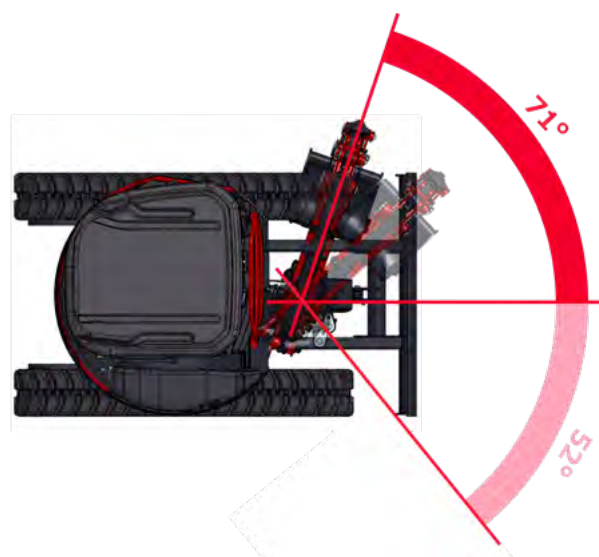
The compact design of the ViO33-7 significantly improves safety on job sites. With the zero tail swing, the risk of accidents is greatly reduced. This ensures a safer environment for both the operator and surrounding workers. The ViO design is focused on creating machines that offer maximum safety through minimal protrusion and enhanced visibility.

EXCELLENT TRANSPORTABILITY

Transporting the ViO33-7 is effortless thanks to its compact overall length of only 4490 mm/4550 mm (short arm/long arm) and the inclusion of six tie-down points. With a transport weight 3 210 kg (cabin)/3 090 kg (canopy), these features ensure secure and convenient transportation, making the ViO33-7 easy to move between jobsites. The combination of its compact size and lightweight structure ensures that the ViO33-7 can be transported quickly and efficiently, reducing downtime and increasing productivity.

OPTIMIZED WORKING RANGE AND BOOM SWING

The ViO33-7 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



The Vi033-7 mini-excavator is engineered to provide the highest level of ease and convenience, ensuring that operators can work efficiently and comfortably in any conditions

SPACIOUS AND ERGONOMIC CABIN

The Vi033-7 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 Vi033-7 features a brand new 4.3-inch color display, including auxiliary circuits flow 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 Vi033-7 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 Vi033-7 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 ViO33-7 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 ViO33-7 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 TRAVEL SPEED AND CYCLE TIME

With a travel speed of 4,8 km/h, the ViO33-7 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%.

IMPROVED ATTACHMENT USABILITY

Simultaneous operation of the auxiliary circuit and the arm allows for efficient use of attachments, broadening the machine's functionality and performance. This feature makes the ViO33-7 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 independent 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.



ENHANCED SAFETY FEATURES

ROBUST CABIN PROTECTION

The ViO33-7 cabin is engineered with safety in mind, meeting ROPS (Roll-Over Protective Structure) certification, TOPS (Tip-Over Protection Structure) 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 ViO33-7 offers exceptional protection for its boom, arm and blade 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 ViO33-7 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 ViO33-7 features a 4.3-inch color display that provides clear, real-time information about the machine's status. The updated digital interface includes optional passcode engine security and offers user-friendly error indications in plain language.

SUPERIOR VISIBILITY

The ViO33-7 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 ViO33-7 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 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 (1470 mm).

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, TOPS & FOPS for 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 (1220 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).

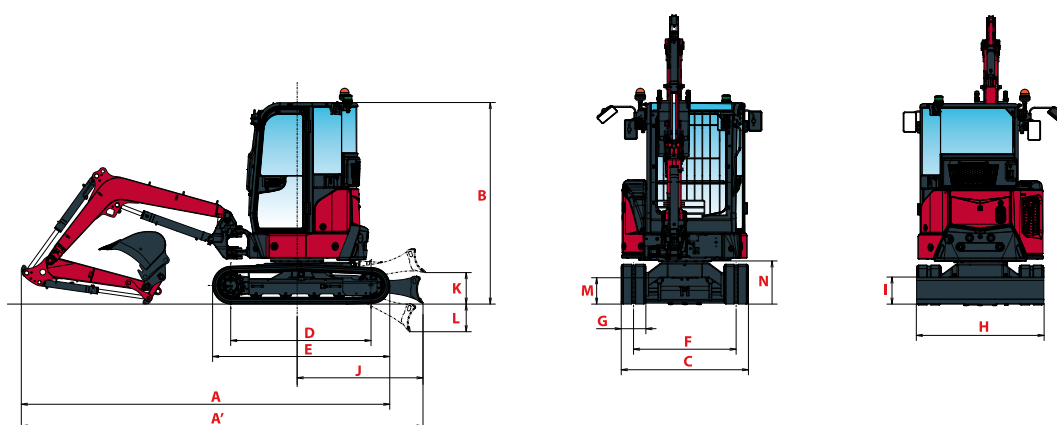
SECURITY AND DURABILITY

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).

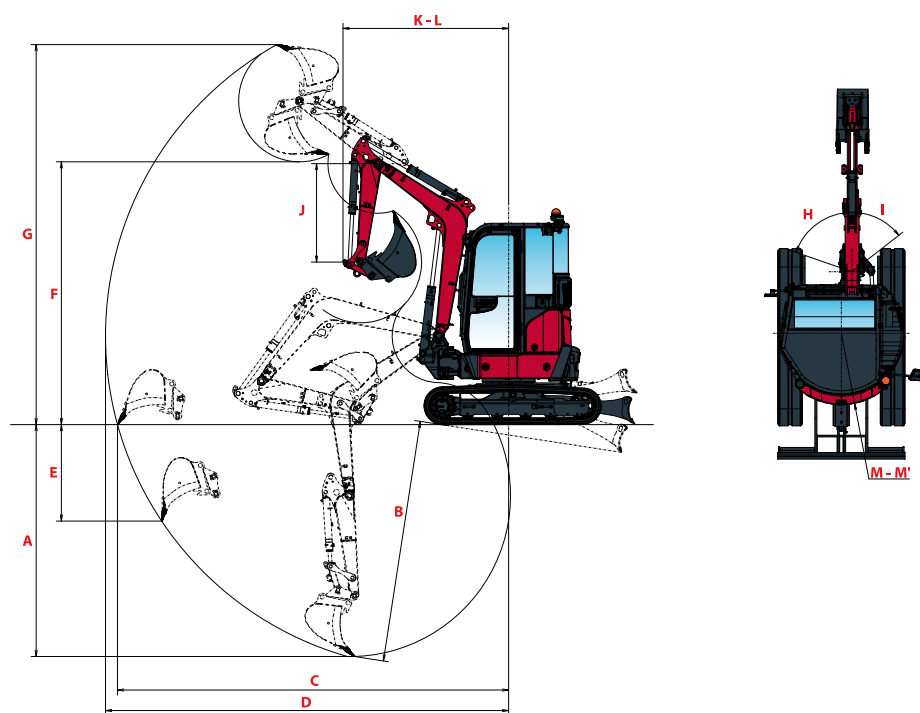
[ATTACHMENTS]

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



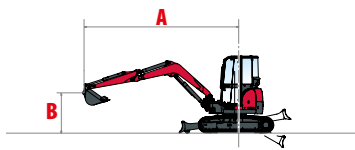
A Overall length	4490/4550 * mm	H Overall blade width	1550 mm
A' Overall length with blade at the back	4895/4955 * mm	I Overall blade height	330 mm
B Overall height	2460 mm	J Blade distance	1535 mm
C Overall width	1550 mm	K Max. lifting height above the ground	385 mm
D Length of track on ground	1710 mm	L Max. lowering depth from the ground	340 mm
E Undercarriage length	2160 mm	M Minimum ground clearance	325 mm
F Lane	1250 mm	N Minimum ground clearance under upper frame	550 mm
G Track width	300 mm		



A Max. digging depth - Blade lifted	2830/3075* mm	H Boom swinging base to left	71°
B Max. digging depth - Blade lowered	2955/3185* mm	I Boom swinging base to right	52°
C Max. digging reach on ground	4770/5025* mm	J Arm length	1220/1470* mm
D Max. digging reach	4915/5165* mm	K Front turning radius	2020/2085* mm
E Max. vertical wall	1175/1590* mm	L Front turning radius with boom swing	1165/1620* mm
F Max. unloading height	3205/ 3375* mm	M Rear turning radius	775 mm
G Max. cutting height	4635/4850* mm	M' Rear turning radius with additional counterweight	860 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.		3 m		2,5 m		2 m		Max.		3 m		2,5 m		2 m		
B																	
3 m	445/445	755*/615	600/600*	675*/675*	-	-	-	-	410/410	755*/565	555/555	675*/675*	-	-	-	-	
2,5 m	385/385	765*/535	590/590	735*/675*	-	-	-	-	355/355	765*/495	545/545	735*/735*	-	-	-	-	
2 m	350/350	785*/490	570/570	850*/800	760/760	950*/950*	1090/1090	1160*/1160*	320/320	785*/450	525/525	850*/740	705/705	950*/950*	1015/1015	1160*/1160*	
1 m	320/320	825*/455	520/520	1150*/745	675/675	1515*/990	-	-	295/295	825*/415	480/480	1150*/685	620/620	1515*/910	-	-	
0 m	335/335	870*/475	490/490	1305*/715	635/635	1710*/945	890/890	2415*/1385	305/305	870*/435	450/450	1305*/655	580/580	1710*/865	810/810	2415*/1270	
-1 m	410/410	915*/585	490/490	1170*/715	635/635	1510*/945	900/900	2015*/1400	375/375	915*/535	450/450	1170*/650	580/580	1510*/865	825/825	2015*/1285	
-1,5 m	520/520	910*/750	-	-	650/650	1215*/965	920/920	1605*/1425	475/475	910*/690	-	-	595/595	1215*/885	845/845	1605*/1310	

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																	
3 m	495/495	755*/680	665/665	675*/675*	-	-	-	-	460/460	755*/630	620/620	675*/675*	-	-	-	-	
2,5 m	430/430	765*/595	650/650	735*/735*	-	-	-	-	400/100	765*/550	610/610	735*/735*	-	-	-	-	
2 m	395/395	785*/545	635/635	850*/850*	840/840	950*/950*	1200/1200	1160*/1160*	365/365	785*/505	590/590	850*/820	785/785	950*/950*	1120/1120	950*/950*	
1 m	365/365	825*/505	585/585	1150*/825	755/755	1515*/1095	-	-	335/335	825*/465	540/540	1150*/765	700/700	1515*/1015	-	-	
0 m	375/375	870*/530	555/555	1305*/795	715/715	1710*/1050	995/995	2415*/1540	345/345	870*/485	510/510	1305*/735	660/660	1710*/970	920/920	2415*/1425	
-1 m	465/465	915*/655	555/555	1170*/795	715/715	1510*/1050	1010/1010	2015*/1555	425/425	915*/605	510/510	1170*/735	660/660	1510*/975	935/935	2015*/1440	
-1,5 m	585/585	910*/835	-	-	730/730	1215*/1070	1030/1030	1605*/1580	540/540	910*/770	-	-	675/675	1215*/990	950/950	1605*/1465	

Long arm, additional counterweight

Cabin											
Blade on ground/Blade above ground											
A	Max.		3,5 m		3 m		2,5 m		2 m		
B											
3 m	435/435	680*/670*	600*/600*	625*/615*	-	-	-	-	-	-	-
2 m	355/350	705*/500	505/500	715*/700*	735*/730*	755*/745*	-	-	-	-	-
1 m	330/325	740*/460	470/465	890*/665	595/585	1070*/855	765/760	1395*/1140	-	-	-
0 m	335/335	790*/480	445/440	1025*/635	550/545	1285*/795	710/700	1660*/1045	-	-	-
-1 m	400/395	860*/565	435/430	995*/625	535/530	1230*/780	690/680	1605*/1030	955/970	2235*/1490	-
-2 m	650/645	855*/860*	-	-	-	-	680/680	950*/945*	935/920	1295*/1305*	-

Canopy											
Blade on ground/Blade above ground											
A	Max.		3,5 m		3 m		2,5 m		2 m		
B											
3 m	410/425	685*/595	505/505	630*/615*	-	-	-	-	-	-	-
2 m	330/340	705*/475	480/475	715*/680	605/620	750*/735*	-	-	-	-	-
1 m	310/305	745*/435	440/435	900*/625	550/545	1065*/795	705/695	1395*/1035	-	-	-
0 m	315/310	795*/450	400/395	1025*/580	495/490	1260*/725	640/610	1655*/925	-	-	-
-1 m	375/360	835*/530	390/385	960*/565	475/470	1220*/700	620/595	1575*/900	965/930	2110*/1165	-
-2 m	630/615	845*/845*	-	-	-	-	640/620	945*/955*	1020/975	1285*/1300*	-

[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	3 090 kg	3 265 kg	0,300 kgf/cm ²
Canopy version/Steel crawlers	3 180 kg	3 360 kg	0,310 kgf/cm ²
Cabin version/Rubber crawlers	3 210 kg	3 390 kg	0,310 kgf/cm ²
Cabin version/Steel crawlers	3 305 kg	3 485 kg	0,320 kgf/cm ²
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 l
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	206 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	2,9/4,8 km/h
Rotation speed	9,4 rpm
Digging force (short arm/long arm)	18,6 kN/16,8 kN
Digging force (bucket)	30,7 kN
Gradability	30°
Noise level (2000/14/CE & 2005/88/CE)	LwA: 93 dBA/LpA: 82 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	6,5 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**]



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