

# ZOOMLION TECHNOLOGY WITH INGENUITY AND CARE



## THE WORLD'S LEADING EXCAVATOR INTELLIGENT MANUFACTURING FACTORY

ZOOMLION Smart City Earthmoving Machinery Park is an industry-leading intelligent and flexible excavator factory. From a piece of steel plate to an excavator, with high-precision welding process, highly reliable assembly process, high-level coating process and strict quality control, each excavator is delivered with ultimate quality.



**ZOOMLION**

**Zoomlion Heavy Industry Science & Technology Co.,Ltd.**

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Note: Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment.



# ZOOMLION 50-TONNAGE CRAWLER HYDRAULIC EXCAVATOR

**ZE500G**



**ZOOMLION**



# EXCELLENT PRODUCT

## POWERFUL AND ENVIRONMENTALLY FRIENDLY

EU Stage V  
Three-speed idling  
ZOOMLION E-COT positive flow hydraulic control system

## COMFORTABLE CAB

Suspension seat  
Large touch screen  
Detail-oriented comfort design

## HIGH ROI

Increased productivity  
Reduced idle time of equipment  
Higher hydraulic system efficiency  
Lower maintenance cost

## SAFETY

Boom cylinder hose burst valve and Arm cylinder hose burst valve are standard-equipped;  
Two directional cameras are standard (right&back); Equipped with fully protected guardrail.

Engine power:  
**298 kW @ 2100 rpm**

Operating weight:  
**51000 kg**

Bucket capacity:  
**2.65~3.3 m<sup>3</sup>**



**HIGH PRODUCTIVITY**

ZE500G are powerful and agile. They adopt ZOOMLION E-COT positive flow hydraulic control technology. The high-power engine provides sufficient power for the operation, and the control system elaborately tuned by ZOOMLION brings fast response.

**LOW FUEL CONSUMPTION**

ZE500G realize fuel saving through the three-speed idling function, in which the high engine speed gradually decreases to 900 rpm if the machine is not operated for certain time.

**LOW IDLE RATE**

ZE500G is equipped with an 820L fuel tank and a customized 58L DEF tank, which reduce the time wasted for refueling and DEF filling and realize long endurance. Moreover, the consumption percentage of DEF is synchronized with that of fuel.

**EXCELLENT HYDRAULIC SYSTEM EFFICIENCY**

ZE500G adopt the multi-valve spools dynamic control technology and main pump flow dynamic matching technology, which makes the machine operation smoother. The flow of the main pump is adjusted through the working load to make the hydraulic system in the optimal working state, so as to achieve both excellent controllability and low fuel consumption.

**Load analysis**

1. Improvement of heavy load efficiency  
2. Load abrupt change technology

**Load matching**

1. RSC swing control technology  
2. BPR regeneration control strategy

**Torque matching**

1. Positive flow constant power control model  
2. Variable speed curve application

**Flow analysis**

1. Two-pump separate power volume speed regulation technology  
2. Multi-mode power control technology application



ZE500G adopt a positive flow control system independently developed by ZOOMLION. With the application of the load analysis, load matching, flow analysis and torque matching technologies, the work efficiency of large-scale digging and loading operation is improved while the fuel consumption is greatly reduced, creating value for customers.

ZE500G			
	2,65 m <sup>3</sup>	3,1 m <sup>3</sup>	3,3 m <sup>3</sup>
Weight	2710 kg	2720 kg	2800kg
Width	1630mm	1875 mm	1966 mm

ZE500G WORK EQUIPMENT AND OPTIONAL RECOMMENDATIONS				
Type	Boom length	Arm length	Bucket configuration and adaptability to working conditions	Adaptability to material density
Standard boom Standard arm	6500	2550	185 mm Breaker	---
Standard boom Long arm	6500	3000	2.65 m <sup>3</sup> Rock bucket	1800 kg / m <sup>3</sup>
			3.1 m <sup>3</sup> Reinforced bucket	1600 kg / m <sup>3</sup>
			3.3 m <sup>3</sup> Earthwork bucket	1400 kg / m <sup>3</sup>
Long boom Long arm	7060	3000	2.65 m <sup>3</sup> Rock bucket	1600 kg / m <sup>3</sup>
			3.1 m <sup>3</sup> Reinforced bucket	1400 kg / m <sup>3</sup>

### REINFORCED BUCKET

Standard high efficient reinforced bucket of 3.1m<sup>3</sup> capacity; Loading efficiency is high because soil is hardly stuck on it; durable with enhanced design.

Suitable for light or loose materials.



### ROCK BUCKET

The optional 2.65m<sup>3</sup> rock bucket is powerful during digging by greatly reducing the cutting resistance of bucket teeth; The bucket is more durable by reducing the wear and impact of the rock on the bottom of the bucket. The stability of the whole machine is improved, and the operation is more comfortable.

Suitable for high abrasion applications like quarry or rock.



### UNDERCARRIAGE

Larger grounding area for higher stability of the machine; Reinforced design for higher durability; Long undercarriage with 9 track rollers, which are tightly engaged with the chain for stronger bearing capacity; The carrier rollers are replaced by track rollers, which are supported at both sides, with stronger bearing capacity and more effective protection for the track.



- Boom and arm adopt large section design. The total cross section of the boom and arm has increased by 9% and 6% respectively. The larger the section, the greater the stress bearing capacity;
- Advanced welding process helps to improve the quality of structural parts.



## EXCELLENT CAB



### SPACIOUS CAB

The cab is equipped with a comfortable suspension seat, which can relieve the fatigue of the user. The large-stroke adjustable armrest box, armrest and seat provide the most comfortable state for the user. Large area glass provides the cab with high transmittance. Large space and comfortable working environment are conducive to the improvement of operator productivity.

### USER-CENTERED DESIGN:

ZE500G is equipped with radio as standard configuration and provides an AUX interface to connect mobile devices to the in-machine entertainment system. The large touch screen at the front right provides the operator with convenient operation and in-depth technical experience. The multi-function integrated panel on the right side allows the operator to perform one-button start and gives consideration to the operators who get used to using physical keys. The temperature controlled storage box at the right rear provides the operator with a suitable food storage location.



## SAFE AND COMFORTABLE EQUIPMENT

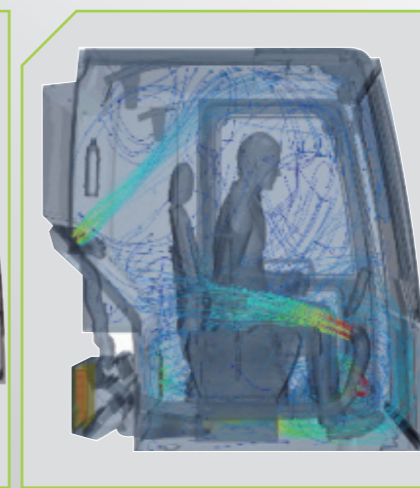
The safety performance of ZE500G meets the latest industry standard. It provides various safety configurations, which minimizes the work safety risks of the personnel near and inside the equipment. The travel alarm lamp, emergency stop switch, high-density anti-skid cover and around view camera provide guarantee for safety.



The enhanced cab adopts an optimized high-strength frame of high impact resistance and durability. Low-noise design makes the working environment more comfortable.

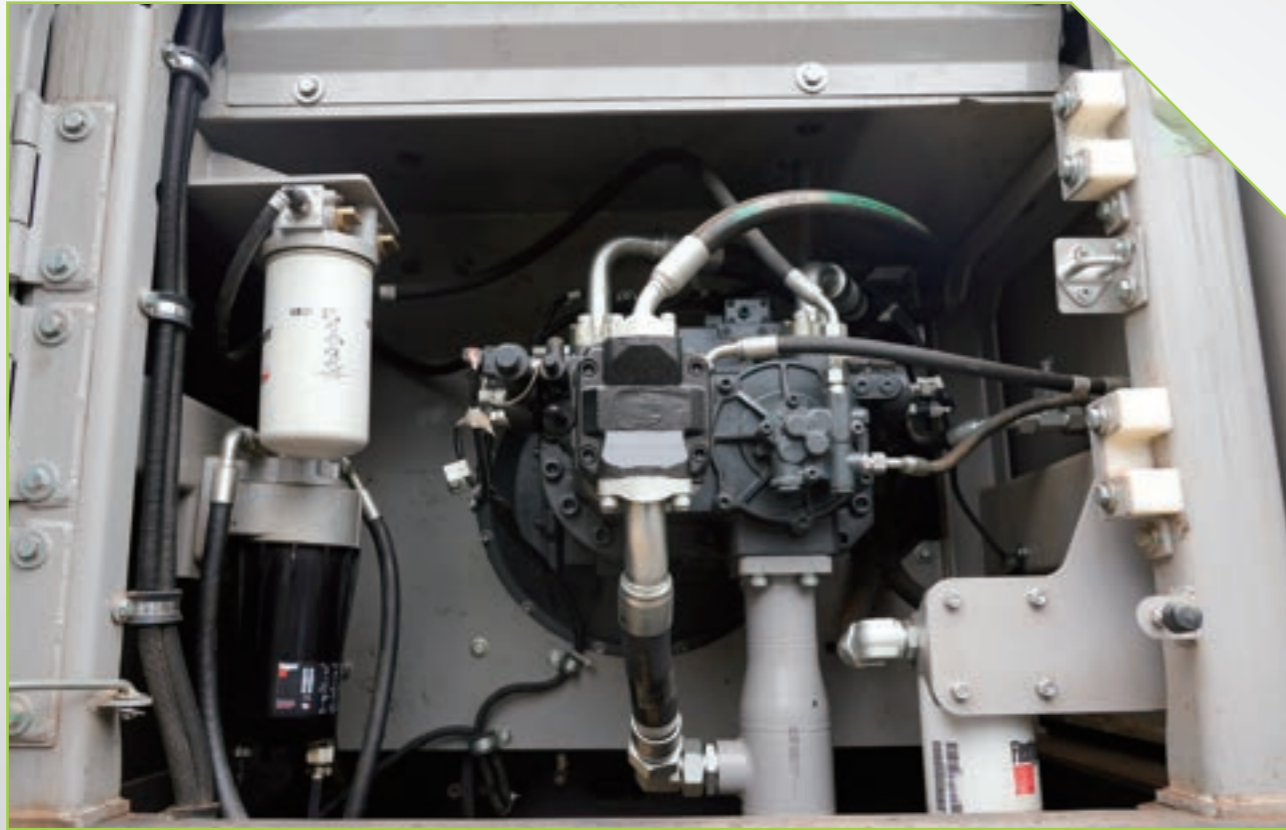
High-power air conditioner and optimized air duct design, which brings more comfortable body feeling.

The aftertreatment unit is placed under the right hood which is normally closed, preventing injuries to personnel in the high temperature area of the aftertreatment unit.



## “ONE-STOP” MAINTENANCE

Most of the filters are placed in one location for easy and quick inspection and maintenance.

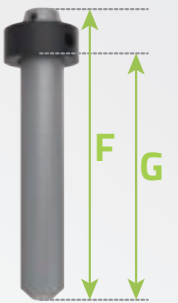
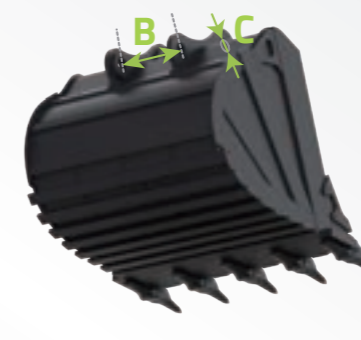
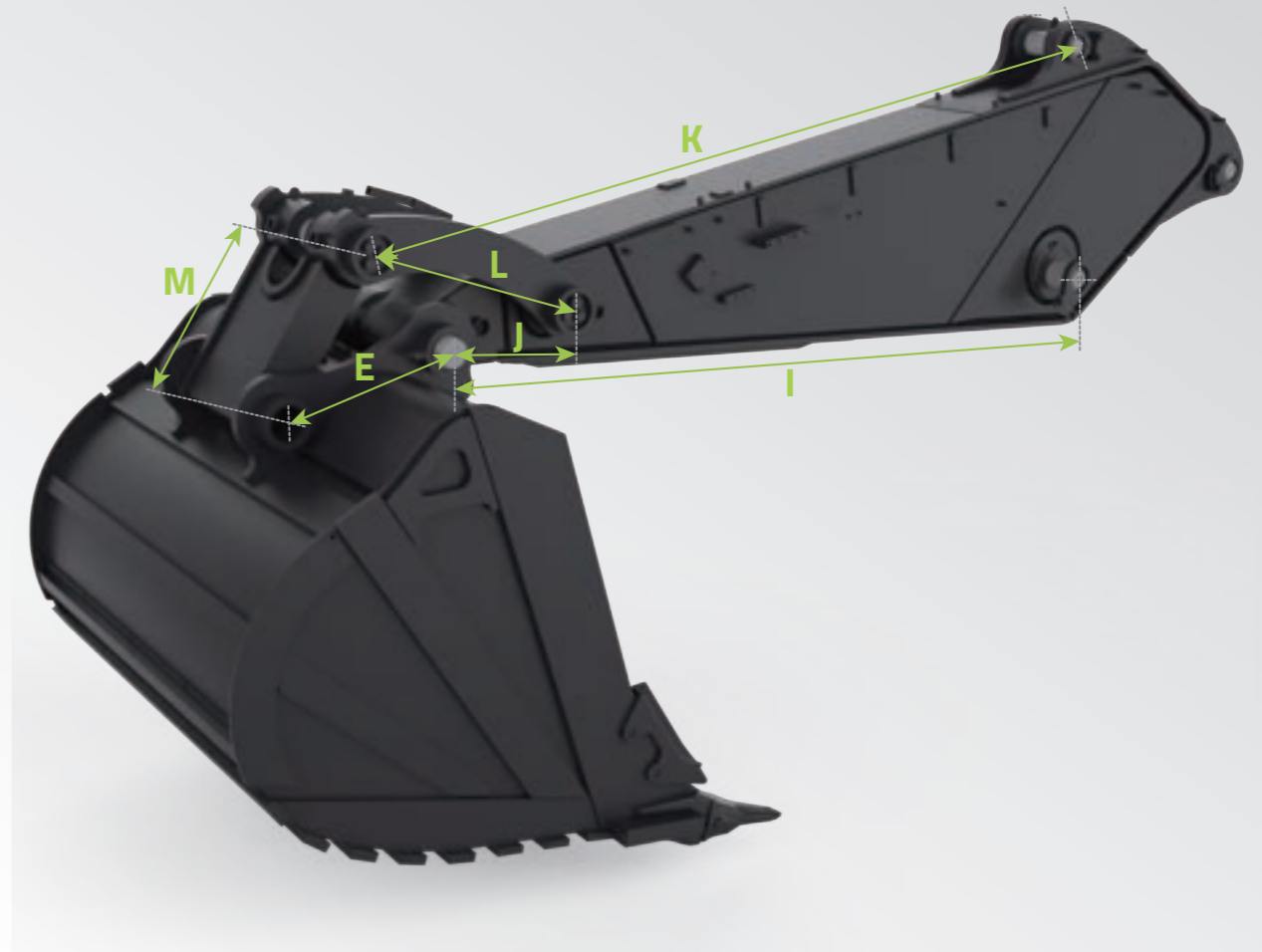


### ZOOMLION MAINTENANCE:

ZOOMLION Maintenance is a maintenance program installed on ZOOMLION machines. It reminds the customer to replace the maintenance parts and record the time of the next maintenance. ZOOMLION service personnel can also maintain the machine through this program. For relevant terms and conditions, please contact your local ZOOMLION distributor.

### DEF SYSTEM:

The DEF tank is placed near the toolbox and a side door can be opened to facilitate the replacement of DEF pump filter element.



Unit: mm

MODEL	A	B	C	D	E	F	G	H	I
ZE500G	476	476	110	110	580	735	678	26	3000

MODEL	J	K	L	M
ZE500G	493	3325	780	740



## POWERFUL PERFORMANCE:

- ZE500G has a first-class level of arm and bucket digging force, suitable for various working conditions.
- ZE500G has the highest drawbar pull compared to other products of a similar level and meets a variety of working environments.

Thanks to its powerful performance, ZE500G is suitable for engineering or mining, it can do any work required by customers. Zoomlion ZE500G will be the biggest strength of customers.

The displacement and speed ratio of the travel motor are larger, and the drawbar pull is increased by 10%. The strong drawbar pull ensures that the machine can travel and turn freely on rough construction sites.

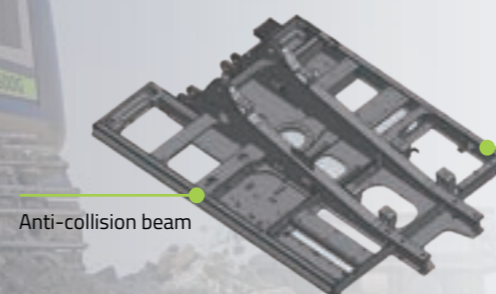
The fuel tank has a capacity of 820L, and there is no need to refuel for three shifts of work.

Adopting a large diameter main valve, optimizing the valve spool structure, reducing the friction between hydraulic oil and plumbing, and reducing oil duct pressure loss was reduced by more than 20%.



Adopting a large diameter main valve, optimizing the valve core structure, reducing the friction between hydraulic oil and plumbing, and reducing oil duct pressure loss was reduced by more than 20%.

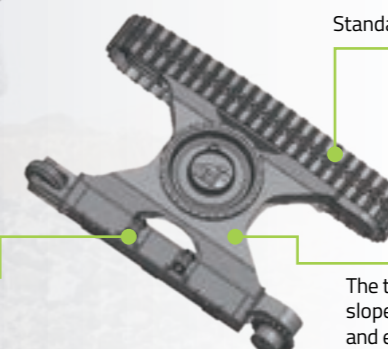
Large displacement dual swing motor, mature technology, large swing torque, fast start, and fast swing speed.



Anti-collision beam

The key parts of undercarriage are thickened and cross section is enlarged, to realize higher overall strength, making it more suitable for harsh working conditions.

The key parts of D-shaped side beam on upper frame are thickened, and combined with the anti-collision beam, the overall strength of it is higher.



Standard 2-grouser reinforced track

The track frame of undercarriage adopts a large slope design, which reduces sediment accumulation and ensures smooth operation of the machine.

# YOU CAN TRUST ZOOMLION MACHINERY



## Long-life maintenance parts:

ZE500G has upgraded superior hydraulic oil and filter element compared with the previous generation, which prolongs the maintenance interval and reduces the maintenance frequency.

Hydraulic oil filter elements



Special hydraulic oil

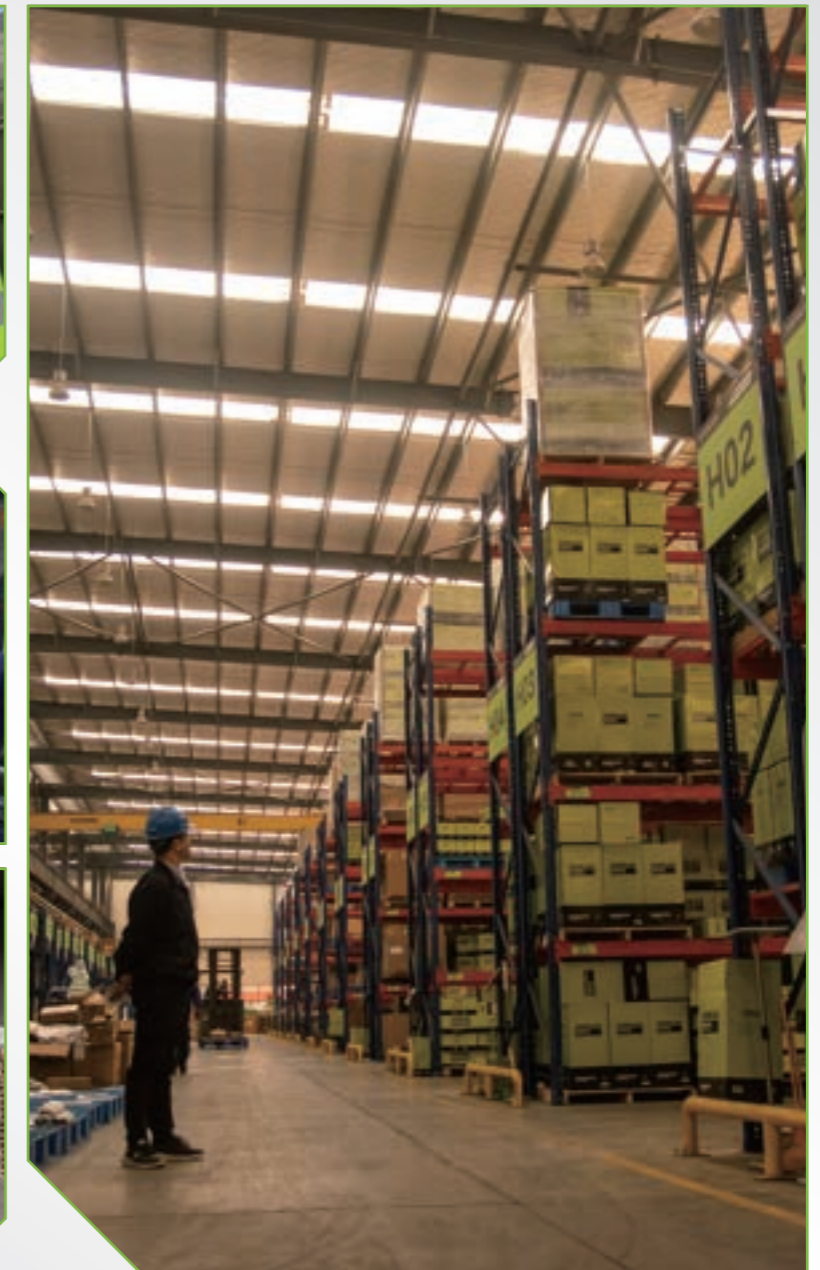


Fuel filter elements



## ZOOMLION SERVICE

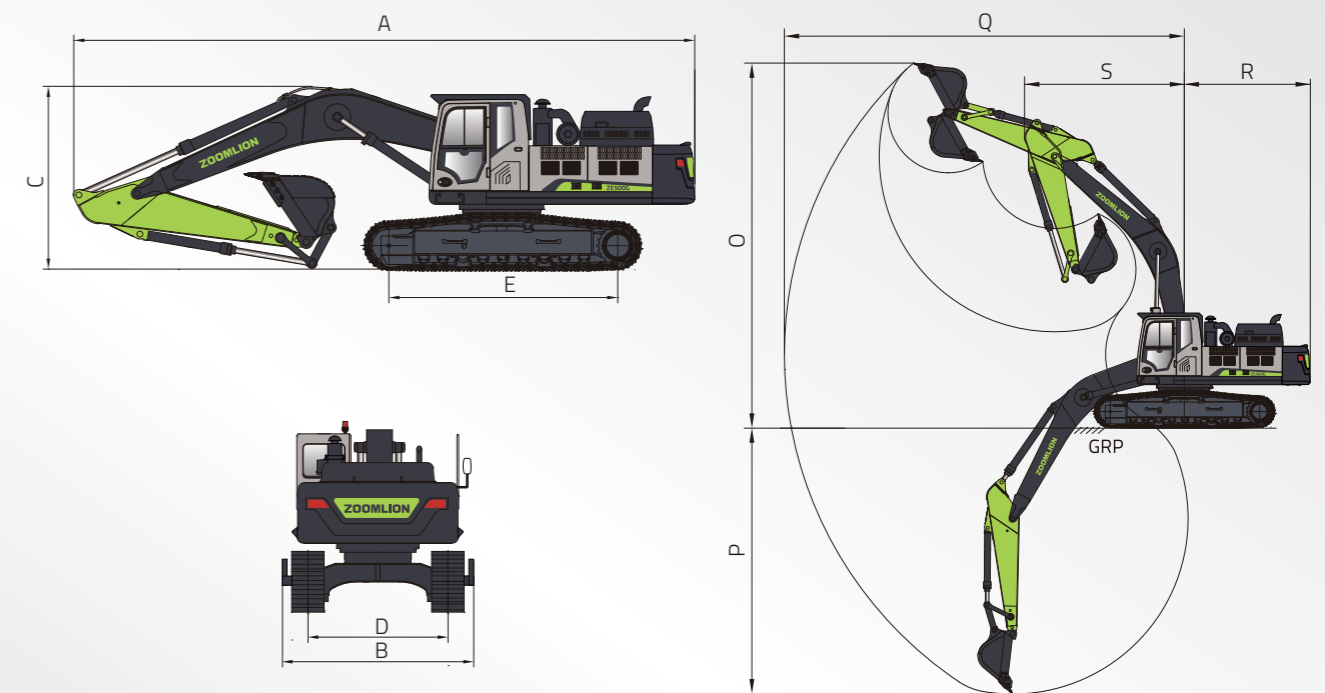
1. We can provide follow-up service for new machines.
2. We have several subsidiaries and warehouses in Europe, which ensures the timeliness of spare parts supply.



ZE500G	
<b>ENGINE</b>	
Brand	Cummins
Model	X12
Rated power	298 kW @ 2100 rpm
Emission standards	EU Stage V
Displacement	11.8 L
<b>HYDRAULIC SYSTEM</b>	
Main pump	Two variable displacement piston pumps Maximum flow: 2x372 L/min
Pilot pump	One gear pump Maximum flow: 23.3 L/min
Maximum pressure - Equipment	34.3 MPa
Maximum pressure - Swing	28.4 MPa
Maximum pressure - Travel	34.3 MPa
Maximum pressure - Boost	3.9 MPa
Maximum pressure - Pilot system	37.3 MPa
<b>UPPER FRAME</b>	
Maximum swing speed	9.2 r/min
Maximum swing torque	154 kNm
<b>UNDERCARRIAGE</b>	
Number of carrier rollers (each side)	2 (Two sides supported track rollers)
Number of track rollers (each side)	9
Number of track guard (each side)	FULL
Travel speed (high)	5.5 km/h
Travel speed (low)	3.3 km/h
Maximum drawbar pull	404 kN
Gradeability	70%
<b>SERVICE REFILL CAPACITIES</b>	
Fuel tank	820 L
Engine coolant	55 L
Engine oil	44 L
Swing drive	2x5.3 L
Final drive (each side)	15 L
Hydraulic system	550 L
Hydraulic tank	310L
DEF tank	58 L

# TECHNICAL SPECIFICATIONS

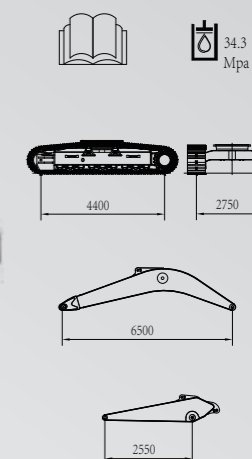
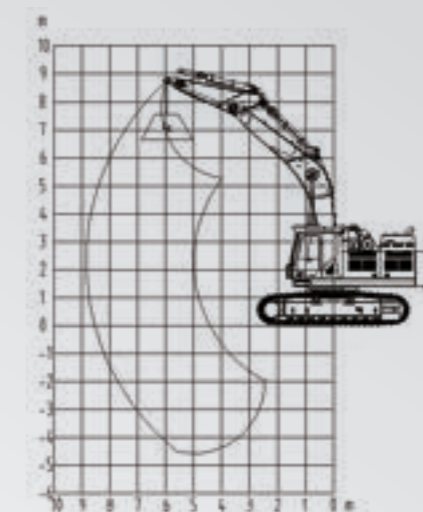
ZE500G	
<b>OVERALL DIMENSIONS</b>	
A Overall length	11785 mm
B Overall width	3610 mm
C Overall height	4015 mm
D Track gauge	2750 mm
E Length of track on ground	4400 mm
<b>WORKING RANGE</b>	
O Maximum digging height	10055 mm
P Maximum digging depth	6495 mm
Q Maximum digging reach	10765 mm
R Tail swing radius	3885 mm
S Front minimum swing radius	4440 mm



Category	Features	ZE500G
Powertrain	Air cleaner	●
	Swirl type air pre-cleaner	●
Hydraulic system	Boom cylinder hose burst valve	●
	Arm cylinder hose burst valve	●
	Attachments plumbing	●
	Quick coupler plumbing	●
Cab	Mesh guard	○
	Skeleton guard	●
	Fire extinguisher	●
	Air suspension seat	●
	Sunshade curtain	●
	Air conditioner	●
	Multifunctional joystick	●
Undercarriage	600mm track	●
	700mm track	○
	800mm track	○
Electrical system	Acousto-optic alarm	●
	Emergency stop	●
	12V DC outlets	●
	Rear view camera	●
	Cab front light	● 2 pcs
	Boom light	● 2 pcs
	Upper frame light	● 1 pc
	Refilling pump	●
	GPS	●
	AM/FM radio	●
	Right view camera and light	●
	Counterweight light	●
	Cab rear light	●
Others	Cylinder sleeve	○
	Cab rear mirror	● 1 pc
	Handrail rear mirror	● 1 pc
	Auto greasing system	○

## LIFT CAPACITY

**ZE500G  
(6.5m+2.55m)**



Do not attempt to lift or hold any load that is greater than these rated values at their specified lift-point radius and height.  
The lift point is located at the centreline of the bucket pivot mounting pin on the arm.

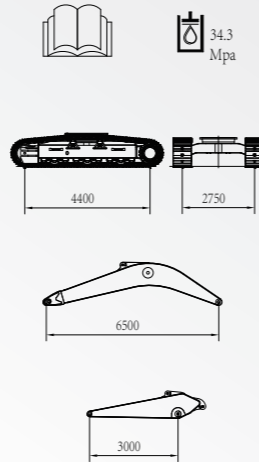
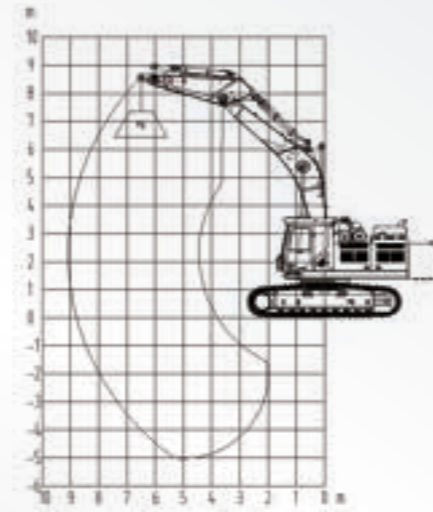
LPH	ZE500G Rated lift capacity (kg)												Lift capacity at maximum radius			
	LPR															
	3.0m		4.5m		6.0m		7.5m		9.0m		End	Side		m		
m	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	m			
7.5														10755*	8878	7.1
6.0					12347*	12329	10649*	7905						10302*	6734	8.0
4.5					13915*	11526	11297*	7619						10159*	5693	8.5
3.0					15514*	10636	12057*	7210						10159*	5152	8.8
1.5					16483*	9936	12570*	6839						10225*	5014	8.8
Grade			22221*	15180	16480*	9582	12507*	6617						10291*	5237	8.5
-1.5			20161*	15365*	15370*	9551	11475*	6606						10224*	5997	7.9
-3.0	19949*	19949*	16697*	15853	12740*	9817								9732*	7642	7.0
-4.5			10620*	10620*										7878*	7878*	5.5

Capacities marked with an asterisk (\*) are limited by hydraulic capacities. See Note 2.

- The mass of slings and any auxiliary lifting devices shall be deducted from the rated load to determine the net load that may be lifted.
- Lift capacities are based on the machine standing on a firm, uniform supporting surface. The user shall make allowances for job conditions such as soft or uneven ground.
- The operator should be fully acquainted with the Operator's Manual and the Operating Safety Manual furnished by the manufacturer before operating the machine.
- NOTE 1 Lift capacities shown are without the power boost feature engaged.
- NOTE 2 Lift capacities shown do not exceed 75% of minimum tipping loads or 87% of hydraulic capacities.
- NOTE 3 The least stable position is over the side.
- NOTE 4 Lift capacities apply only to the machine as originally manufactured and normally equipped by the manufacturer.
- NOTE 5 The total mass of the machine is 51000 / 53500kg ;Included in this mass are 600mm triple grouser shoes, 6.5m boom, 3.0m arm, 9000 / 10000kg counterweight, all operating fluids and a 75kg operator.
- NOTE 6 Lift capacities are in compliance with ISO 10567:2007.

# LIFT CAPACITY

## ZE500G (6.5m+3.0m)



Do not attempt to lift or hold any load that is greater than these rated values at their specified lift-point radius and height.  
The lift point is located at the centreline of the bucket pivot mounting pin on the arm.

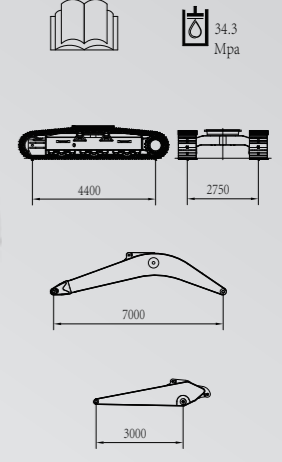
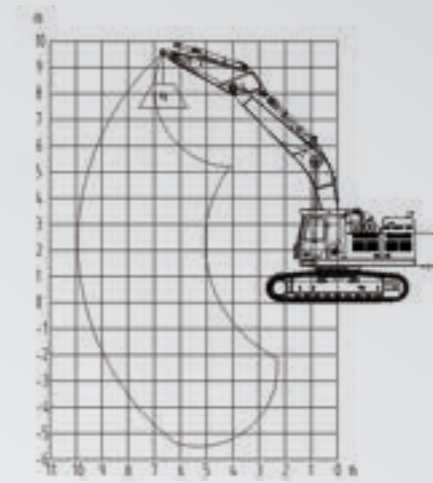
LPH	ZE500G Rated lift capacity (kg)												
	LPR										Lift capacity at maximum radius		
	3.0m		4.5m		6.0m		7.5m		9.0m				
m	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	m
7.5											9939*	8428	7.4
6.0							10121*	8152			9648*	6549	8.2
4.5			17689*	17689*	13201*	11726	10835*	7762			9590*	5485	8.8
3.0			21212*	16799	14889*	10727	11672*	7273	9739*	5029	9671*	4946	9.06
1.5			22891*	15391	16090*	9921	12314*	6827	9905*	4827	9829*	4768	9.05
Grade			22566*	14925	16388*	9451	12462*	6534			10010*	4915	8.8
-1.5	24820*	24820*	20916*	14973	15630*	9321	11810*	6454			10154*	5542	8.2
-3.0	22850*	22850*	17895*	15368	13549*	9499					10047*	6892	7.3
-4.5			12676*	12676*							9093*	9093*	5.8

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- NOTE 5 The total mass of the machine is 51000 / 53500kg :Included in this mass are 600mm triple grouser shoes, 6.5m boom, 2.55m arm, 9000 / 10000kg counterweight, all operating fluids and a 75kg operator.
- NOTE 6 Lift capacities are in compliance with ISO 10567:2007.

# LIFT CAPACITY

## ZE500G (7.0m+3.0m)



Do not attempt to lift or hold any load that is greater than these rated values at their specified lift-point radius and height.  
The lift point is located at the centreline of the bucket pivot mounting pin on the arm.

LPH	ZE500G Rated lift capacity (kg)												
	LPR										Lift capacity at maximum radius		
	3.0m		4.5m		6.0m		7.5m		9.0m				
m	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	m
7.5											8594*	7526	8.4
6.0							9175*	7374	8097*	4652	6724*	4369	9.1
4.5							12982*	10919	10122*	7033	8437*	4559	9.6
3.0							14819*	10107	11101*	6632	8888*	4378	9.8
1.5							15949*	9484	11806*	6278	9193*	4298	9.8
Grade			21961*	14978*	16083*	9148	11759*	6281	9113*	4073	7955*	3427	9.6
-1.5			20195*	15119*	15247*	9062	11419*	5955	8250*	4050	7884*	3906	9.1
-3.0			17383*	15425	13339*	9182	9776*	6035			7568*	4888	8.3
-4.5	17784*	17784*	12966*	12966*	9749*	9518					6552*	6552*	7.1

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**VISION  
CREATES  
FUTURE**

