

# ZE230CLC-9, ZE230DLC-9

Excavators 22-22.8 t / 48,500-50,260lb / CUMMINS 178 hp / 166 hp

**AUTO LUBE SYSTEM** 





# **COMFORT CAB**

The newly designed ROPS-standard cab features a vast glass area improving front and side visibility for easier machine operation. The comfort cab also offers a wider entrance, more legroom, spacious interior and new ergonomic controls.

# Sight, space and sound

ZENVAN Excavator comfortable and low noise environment promotes efficiency and reduces operator fatigue. Its ROPS standard cab features a wider entrance, more legroom, and spacious interior for easy access. The climate control system maintains a comfortable working environment.

#### Climate control system

The machine boasts an upgraded climate control system for improved controllability and operator comfort. The system is displayed on an 7-inch LCD monitor and features industry-leading air circulation and defrosting capabilities, which speed up the heating and cooling of the cab, creating a more comfortable environment for the operator.



#### **Monitor & Keypad**

The monitor and keypad combination provides a user-friendly interface for controlling various functions of the machine. The keypad allows the operator to navigate through menus and customize settings for the camera\*, air conditioning, and lights. Configurations can be saved for convenience.

\* options



#### Wide, Comfortable Operating Space

To ensure optimal visibility of your job site, the cab is designed with slim pillars and large expanses of glass, resulting in excellent all-around visibility. Additionally, a longer vertical windshield wiper is strategically positioned to provide the best possible coverage of the front window, ensuring comfortable and accurate operation.



# Highly Sensitive Joystick and Easy Entrance

New joystick grips for precise control have been equipped with double switches.

- Left: Horn / Optional
- Right: One touch deceleration



# A More Reliable Way To Reach You Dream

ZENVAN excavator is designed for optimal performance, with a Cummins engine that provides reliable power and a reinforced bucket that can handle tough materials. The excavator's swing control system allows for precise movements, enabling operators to work quickly and accurately. This combination of features makes the Zenvan excavator a versatile and reliable tool for a wide range of digging and excavation tasks.

#### **Powerful Cummins engine**

## ZE23OCLC-9 with Cummins 6BTAA5.9 low emission. ZE23ODLC-9 with Cummins QSB7 high emission.

The Cummins engine in the Zenvan excavator is designed with 40% fewer parts than competitors, reducing weight without compromising strength. This provides a reliable power source that meets ecological standards without unnecessary technology, keeping costs down.



#### **Single Layer Cooling System**

1. Improved cooling performance by changing over to 3 column type structure in a row 2. Easy to clean without disassembling anentire radiator total assembly



#### Reinforced Bucket and Bucket Linkage

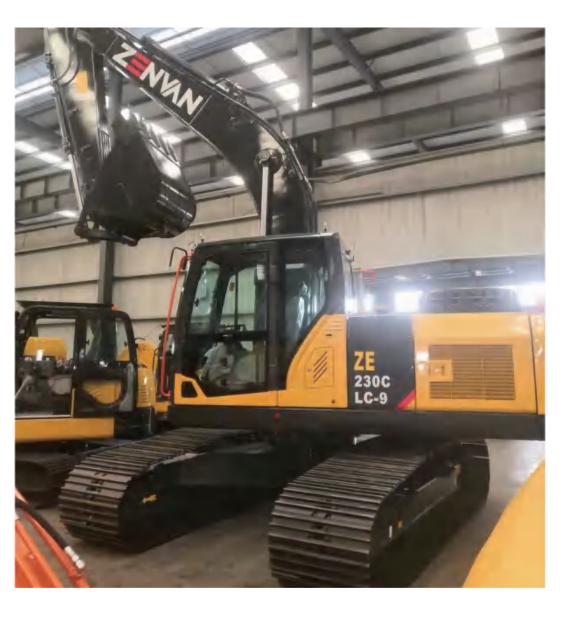
Sealed and adjustable bucket linkage provides less wear of pins and bushes as well as silent operation. The design includes bucket link durability and anti wear characteristics. Additional reinforcement plates on cutting edge section. Reinforced bucket is made with thicker steel and additional lateral plate.



#### **Enhanced hydraulic system**

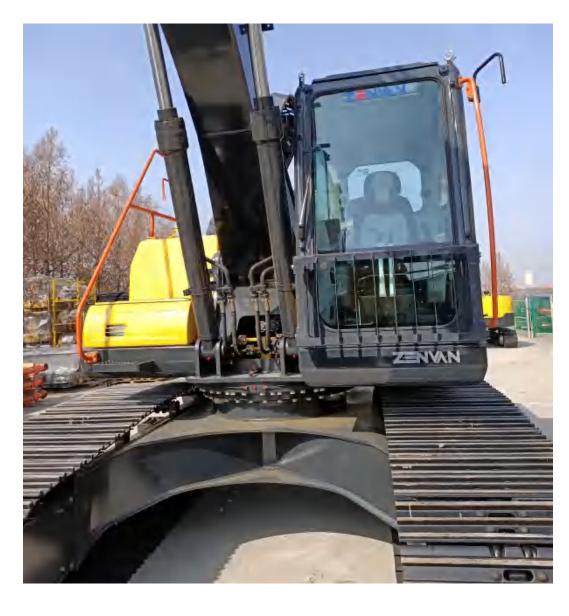
The optimized hydraulics system combined with the fully electronic control system and advanced ECO mode, matches engine power, improves controllability and response time. This results in better fuel efficiency and productivity. With a Kawasaki pump, which provides reliable and efficient power for digging and excavation. The pump's advanced technology enables smooth and precise movements, maximizing productivity and minimizing wear and tear on the machine.





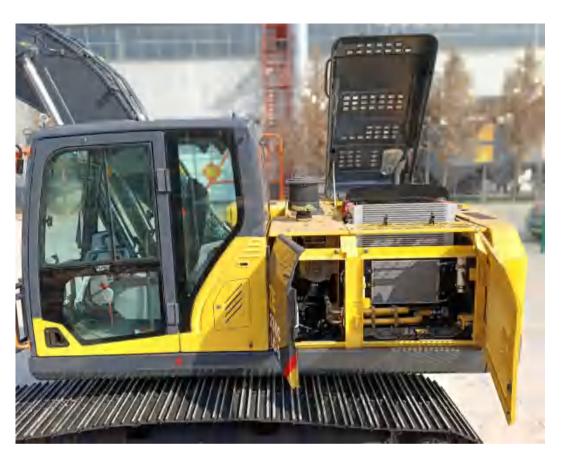
# SUPERIOR PERFORMANCE

Excavators are built to deliver superior performance, with strong hydraulic systems and advanced controls that enable efficient digging and excavation. Their durability and versatility make them essential for a wide range of industries and applications.



# **EASY MAINTENANCE**

Short maintenance operations at long intervals increase the availability of the equipment on site. ZENVAN has developed the ZE215C-7 / ZE230CLC-9 with a view to high profitability for the user.



#### II Engine oil filter

The engine oil filter provides excellent filtration and allows for an extended 500-hour oil change interval. It's easily accessible and prevents contamination of the environment.

#### **2** Easy maintenance

The radiators are easily accessible, making cleaning effortless. The engine parts can be accessed from the top and through side panels.

#### Hydraulic oil return filter

The hydraulic system is safeguarded with glass fiber filter technology in the main oil return filter, filtering out over 99.5% of foreign particles and extending the oil change interval.

#### 4 Air cleaner

With its substantial capacity, the forced air cleaner removes over 99% of airborne particles, decreasing the possibility of engine contamination and increasing the cleaning and cartridge change intervals.

#### Water separator

The engine is safeguarded by a high-efficiency and large-capacity water separator, which eliminates most of the moisture from the fuel.

#### 6 PC Monitoring

The PC monitoring function facilitates system connection, enabling maintenance personnel to inspect various parameters such as pump pressures, engine rotation speed, and more. The recorded data can be stored and printed for future analysis.

#### Pre cleaner

A rotor type pre-cleaner can increase filtering efficiency by up to 20%, extending the life of the primary filter and resulting in a cleaner engine with improved performance.

# Auto-Lube system for easy maintenance

The boom & arm grease inlets are grouped for easy access.

## **BUCKET AND ATTACHMENTS**

Heavy Construction Bucket, which is also called Heavy Duty bucket, is the most commonly used bucket in the construction equipment market and is designed mainly for use in heavy construction but also used in low density mining and quarry application.





## General Purpose bucket (GP)

The General Purpose bucket is specifically engineered for digging and re-handling soft to medium materials, such as topsoil, loam, and coal, that have low wear characteristics.



## **Heavy Duty bucket (HD)**

The Heavy Duty bucket, also known as the standard bucket, is widely used in the construction industry and is primarily designed for heavy construction projects. It is also employed in low-density mining and quarry applications.



# Severe Duty bucket (SD)

The Severe Duty bucket is specifically engineered for use in high-density mining and quarry applications that require high-strength and high-abrasion-resistant materials. It is also known as the Rock bucket and can handle the toughest of job sites.





General Purpose Bucket(GP)



Heavy Duty Bucket(HD)



Severe Duty Bucket(SD)

Capacity (SAE/PCSA)				
<b>General Purpose Bucket(GP)</b> 0.39 / 0.51 / 0.81 / 0.92 / 1.05 / 1.17 / 1.28 m <sup>3</sup>				
Heavy Duty Bucket(HD)	0.60 / 0.76 / 0.92 / 1.08 / 1.20 / 1.35 / 1.40 / 1.51 m³			
Severe Duty Bucket(SD)	0.80 / 0.91 / 1.07 / 1.23 m³			



Hydraulic Breaker

BREAKER



Top Type Hydraulic Breaker



Box Type Hydraulic Breaker

	Model	Weight	Tool diamter	Frequency	Main material
Hydraulic Breaker	ZVB1400S	1600-1650 kg	140 mm	350-500 bmp	cylinders: 40Cr forged, sheel thickness: 20mm

#### **Quick Coupler range**

Zenvan offers quick couplers that reduce break-out force loss and match Zenvan attachments, including a universal coupler that can pick up various attachments without leaving the cab. Switching attachments is quick and effortless with these couplers.



## **Auxiliary piping**

We provides a range of factory-fitted hydraulic lines to ensure optimal flow and pressure for hydraulic attachments like mowers, grinders, shears, crushers, and tilt rotators. These hydraulic lines include breaker and shear piping, as well as rotator piping, enabling you to customize your machine to suit your specific needs.



## MIX AND MATCH VERSATILITY

Looking for powerful and versatile excavators to boost your productivity and profitability? Zenvan's ZE230CLC-9/ZE230DLC-9 excavators are engineered to help you access more applications, perform a wide variety of tasks on a single job, and achieve faster cycle times with exceptional control. With a selection of robust attachments to choose from, these machines provide you with the flexibility and durability you need to tackle any project.

### **NEWLY ADDED FEATURE**

# Dig, swing, load, move

## **COMFORT CAB**

- One of the most spacious cabs in the market, with low noise & vibration levels and excellent all-round visibility.
- Fully adjustable suspension seat, air conditioning with climate control as standard.
- ROPS standard manufacturing

#### Climate control system

Our state-of-the-art air circulation and defrosting system is designed to optimize the heating and cooling of your cab, providing quick and efficient temperature **control**.

#### Tier 2 or Tier 3 Cummins engine

Cummins 6BTAA5.9-C178(ZE230CLC-9) engine boasts more power while reducing fuel consumption and emissions.

#### 7 Inch Monitor

Our latest LCD color monitor is designed to be user-friendly, providing easy access to all of your machine's settings and maintenance data in one place. Enjoy full visibility and control over your machine's operation with this advanced display.

# **HEAVY-DUTY BOOM SYSTEM**

#### Heavy-duty Front

- Our excavator is built tough with reinforced castings, forged steel pivot points, and a heavy-duty arm and boom to withstand high-impact materials.
- We've strengthened the base of our equipment's arm with reinforced bars and fortified the center and end boss to offer enhanced protection against damage.



# 24 MONTH / 4000 HRS WARRANTY

Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services.



# **SUPERIOR PERFORMANCE**

#### KAWASAKI Strong Pump

Kawasaki makes sure the superior strong performance, large flow keep the actions smooth.

#### Pre cleaner

- Rotor type dry pre-cleaner an standard
- Separate more than 99% of particles of 20 micron and above particles.



# AUTO LUBE System

- Operator can finish daily grease maintenance just with one click
- Good maintenance can greatly extend the service life of equipment

#### Heavy-duty Front

- Reinforced castings and forged steel pivot points and reinforced heavy-duty arm and boom to withstand high-impact materials.
- To better protect the base of the arm, reinforced bars have been added and the arm center and end boss have been strengthened.

### BUCKET

# Advanced HD bucket $1.2 m^3$

- zenvan new HD-class bucket designed for higher productivity.
- Newly designed side cutter and abrasion resistant steel increase bucket solidity..

#### Quick Coupler

A full range of quick couplers reduce a loss of break-out force and perfectly match many different brands attachments.

### **FUEL EFFICIENCY**

Zenvan excavator is designed with fuel efficiency in mind, utilizing Kawasaki pump matching technology and a Cummins engine to deliver optimal performance while minimizing fuel consumption. With optimized lever control and auto idle features, our machinery is engineered to deliver maximum erodulativity and officiency as the inhibite.

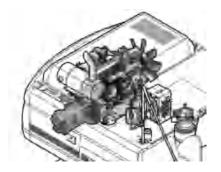


#### **OPTIMIZED LEVER CONTROL & AUTO IDLE**

sturiaby mode when the operator takes a break, preventing unnecessary fuel consumption and increasing system sustainability.



#### PUMP MATCHING TECHNOLOGY



Zenvan's new technology matches the response time between the pump and engine to reduce unnecessary fuel consumption and exhaust fumes, improving system efficiency and sustainability in industries.





# IMPROVE EFFICIENCY FOR YOU

Our purpose is help clients save fuel, reduce operating costs, and increase benefits by increasing efficiency and sustainability in industries that use pumps and engines.

# **TECHNICAL SPECIFICATIONS**

Engine	ZE230CLC-9	ZE230DLC-9
Maker / Model	Cummins 6BTAA5.9-C178-II	Cummins QSB7
Туре	Water cooled, 4 cycle Diesel, 6-Cylinders in line, direct injection, Turbocharged, charge air cooled, Low emission	, Water cooled, 4 cycle Diesel, 6-Cylinders in line, electric injection, Turbocharged, aftercooled,
Rated flywheel horse gross	133 kW ( 178 hp / 181 ps) @ 2,000 rpm	/
power net	125 kW ( 168 hp / 170 ps) @	124 kW ( 166 hp / 170 ps) @
net	2,000 rpm	2,000 rpm
Fuel system	Bosch Mechanical	High Pressure Common Rail
Injection	Direct	Electric
Max. Torque	750 N·m @ 1,300 rpm	650 N·m @ 1,250 rpm
Bore x Stroke	102 X 120 mm (4" X 4.7")	107 X 124 mm (4.21" x 4.88")
Piston Displacement	5,900 cc (360 in <sup>3</sup> )	6,700 cc (408 in <sup>3</sup> )
Emission standard	Tier 2	Tier 3

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			пι		ue

Bucket digging force 157KN 129KN Arm digging force Maximum tractive force 180KN

#### Hydraulic system

#### Main Pump

Type

Max. flow

Sub-Pump for Pilot Circuit

Cross-sensing and fuel saving pump system

#### Hydraulic motors

Travel

Swing Pressure

Relief valve setting Travel system Swing system Pilot system

Variable displacement tandem-axis

piston pumps 228 \* 2 L/min Gear pump

Two speed axial pistons motor with brake valve and parking brake

Axial piston motor with automatic brake

37 Mpa (5367 psi) 37 Mpa (5367 psi) 25.5 Mpa (3699 psi) 3.9 Mpa (566 psi)

#### **Drive & Brakes**

Drive Method Drive Motor Reduction System

Max. Travel Speed(high/low)

Grade-ability Parking Brake Fully hydrostatic type

Axial piston motor, in-shoe design

Planetary reduction gear

5.2 / 3.5 km/h 35° (70 %) Multi wet disc

#### Control

Pilot pressure operated joysticks and pedals with detachable lever provide almost effortless and fatigueless operation.

Pilot Control

Traveling and Steering Engine Throttle

Lights

Two joysticks with one safety lever

(LH): Swing and arm,

(RH): Boom and bucket (ISO)

Two levers with pedals

Electric, Dial type

One light mounted on the boom and one in the

battery box, two in the cabin top

Swing system	
Swing Motor	Fixed displacement axial pistons motor
Swing Reduction	Planetary gear reduction
Swing Bearing lubrication	Grease-bathed
Swing Brake	Multi wet disc
Swing Speed	11.5 rpm

Hydraulic tank Coolant Engine oil	246 21 21	65 5.55 5.55
Upper-structure (std) - HD		
Boom	mm	2700
Arm	mm	2900
Bucket	m³	1.2 (HD)

liter(metric)

420

US gal

111

#### Undercarriage

Fuel tank

The X-leg type center frame is integrally welded with reinforced box\_x005f\u2213ection track frames. The undercarriage includes lubricated rollers, idlers, track adjusters with shock absorbing springs and sprockets, and a track chain with double or triple grouser shoes

Model	ZE230CLC-9	ZE230DLC-9
Center Frame	X-leg type	X-leg type
Track Frame	Pentagonal box	Pentagonal box
Hack Frame	type	type
No. of Shoes on Each Side	49	49
No. of Carrier Rollers on Each Side	2	2
No. of Track Rollers on Each Side	9	9
No. of Rail Guards on Each Side	2	2

## Operating weight (approximate)

Coolant & Lubricant capacity

Operating weight, including 5,700 mm (18' 7") boom, 2,900 mm (9' 5") arm, SAE heaped 1.20m3 (1.57 yd3) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, and all standard equipments.

Shoes		Operating Weight	Ground Pressure
Туре	width mm (in)	kg (lb)	kgf/cm2 (psi)
Triple	600 (24")	22,000 (48,500)	0.45(6.45)
Grouser	800 (32")	22,800 (50,260)	0.37(5.25)

# BUCKET

					TRACK			STD	Track		
					C/W (ton)			4.1			5.3
					SHOE (mm)			60	00		
Bucket Type	Capacity	(m³)	Width (mm)		Width (kg)		5.7m Boom	ı	5.2m Boom	5.7m Boom HD	SLR (9.96m)
вискет туре	SAE/ PCSA	CECE	W/O Cutter	With Cutter	vviatii (kg)	2.4m Arm	2.9m Arm	3.5m Arm	2.0m Arm	2.9m HD	SLR (7.73m)
	0.39	0.35	736	820	330	-	-	-	-	-	•
General Purpose Bucket	0.51	0.47	722	772	529	•	•	•	•	•	-
	0.81	0.72	1,064	1,126	654	•	•	•	•	•	-
	0.92	0.81	1,172	1,236	697	•	•	•	•	•	-
	1.05	0.92	1,308	1,370	751	•	•		•		-
	1.17	1.00	1,428	1,491	809	•			•		-
	1.28	1.10	1,542	1,605	848			<b>A</b>	•	•	-
	0.60	0.56	750	N/A	651	•	•	•	•	•	-
	0.76	0.69	900	N/A	722	•	•	•	•	•	-
	0.92	0.83	1,050	N/A	813	•	•		•	•	-
Heavy Duty Bucket	1.08	0.97	1,200	N/A	884	•			•		-
rieavy Duty Bucket	1.20	1.11	1,350	N/A	955			<b>A</b>	•		-
	1.35	1.20	1,450	N/A	1,023		<b>A</b>	<b>A</b>	•	<b>A</b>	-
	1.40	1.24	1,500	N/A	1,046		<b>A</b>	-		<b>A</b>	-
	1.51	1.34	1,600	N/A	1,114		<b>A</b>	-		-	-
	0.91	0.82	1,050	N/A	1,009	•	•		•		-
Severe Duty Bucket	1.07	0.96	1,200	N/A	1,113	•		<b>A</b>	•		-
	1.23	1.10	1,350	N/A	1,193		<b>A</b>	<b>A</b>	А	<b>A</b>	-

- •: Applicable for materials with density of 2,100 kg/m3 (3,500 lb/yd³) or less : Applicable for materials with density of 1,800 kg/m3 (3,000lb/yd³) or less
- ■: Applicable for materials with density of 1,500 kg/m3 (2,500lb/yd³) or less
- A: Applicable for materials with density of 1,200 kg/m3 (2,500lb/yd³) or less

- Not recommended

To maintain machine stability when handling materials of a certain density, follow the recommended bucket size closely. In severe working conditions, it's safer to use a smaller bucket than recommended to avoid durability risks.

# VALUE-ADDED PLAN

Being a Zenvan customer means having a complete set of services at your fingertips. Zenvan can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Zenvan is committed to increasing the positive return on our investment and maximising uptime.

#### Complete Solutions

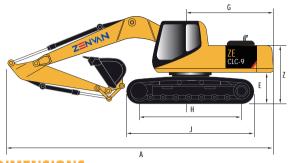
At Zenvan, we have the right solution for your needs. Let us provide comprehensive support throughout the entire life cycle of your machine. By listening to your requirements, we can help reduce your total cost of ownership and increase your revenue. Our goal is to be your trusted partner in achieving success, so why not let us help you today?

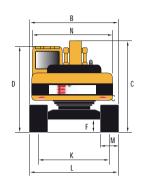


#### Genuine Zenvan Parts

Zenvan stands out for its attention to detail. Every part is extensively tested and approved for quality, ensuring maximum uptime and performance. Trusting only Genuine Zenvan Parts is a solid investment in your machine's future and ensures it retains the renowned Zenvan quality.

# **DIMENSIONS**





#### DIMENSIONS

Boom 5,700 mm Arm 2,900 mm Shoe 600mm - Std

Α	Overall length	9560
В	Overall width(600mm track width)	2980
В	Overall width(800mm track width)	3180
С	Overall height (Boom top)	3040
D	Overall height(cab top)	3120
E	Counterweight clearance	1065
F	Min.ground clearance	466

		Unit : mm
G	Min.tail swing radius	2720
Н	Track ground length	3715
J	Track length	4450
K	Track gauge	2380
L	Track width	2980
L	Track width	3180
М	Track shoes width(std)	600
N	Turn-able width	2700

# **DIGGING FORCE(ISO)**

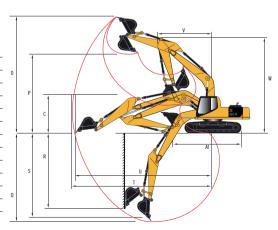
At power boost (ISO)

Bucket(SAE/PCSA)	0.51m <sup>8</sup>	0.81m³	0.92m <sup>§</sup>	1.05m³	1.2m <sup>8</sup>	1.28m³
Digging force	157kN	157kN	157kN	157kN	157kN	157kN
	16,000kgf	16,000kgf	16,000kgf	16,000kgf	16,000kgf	16,000kgf
	35,300lbf	35,300lbf	35,300lbf	35,300lbf	35,300lbf	35,300lbf

Arm	2,000mm	2,500mm	2,900mm	3,500mm	6,200mm
	156kN	129kN	111kN	100kN	62kN
Digging force	15,900kgf	13,160kgf	11,320kgf	10,200kgf	6,320kgf
	35,070lbf	29,000lbf	25,000lbf	22,480lbf	13,940lbf

# **WORKING RANGES**

0	Max.digging height	9750
Р	Max.dumping height	6560
Q	Max.digging depth	6515
R	Max.vertical wall digging depth	5915
S	Max.digging depth for 2.5m/8" level	6380
T	Max.digging reach	9865
U	Max.digging reach at ground level	9680
V	Min.swing radius	3630
W	Min.height at min.swing radius	7670
Z	Counterweight height	2120
<b>A</b> 1	Ground length (Transportation)	5360
	Bucket angle	166°



# **LIFTING CAPACITY**STANDARD CONFIGURATION

Boom: 5,700mm Arm: 2,900mm Bucket: SAE/PCSA0.92m3 (1.2yd3) Shoe: 600mm

A(m)	<del></del>		4	1	í	5	(	5	7	7	8	3	Ma	ax. Read	:h		
B(m)	- L	<b>(</b>	ū	<del>[]</del>	ū	<del>[</del>	ū	( <del>- </del> -	ū	( <del>- -</del> 1	- L	<b>(</b>	T.	( <del>- -</del> 1	T.	<del>[]</del> =	A(m)
8															*3.42	*3.42	5.94
7															*3.31	*3.31	6.85
6									*4.53	*4.53	*4.39	3.84			*3.30	*3.30	7.51
5									*4.87	*4.87	*4.69	3.79			*3.36	2.99	7.99
4							*5.95	*5.95	*5.37	4.79	*4.99	3.72	*4.50	2.95	*3.48	2.75	8.32
3			*11.94	*11.94	*8.57	*8.57	*6.92	6.19	*5.97	4.64	*5.36	3.62	4.67	2.90	*3.65	2.59	8.52
2			*7.08	*7.08	*10.19	8.36	*7.89	5.93	*6.58	4.49	5.71	3.53	4.61	2.84	*3.89	2.51	8.60
1			*5.62	*5.62	*11.36	8.03	*8.69	5.73	*7.11	4.36	5.61	3.44	4.55	2.79	4.09	2.50	8.56
0 (Ground)	*3.08	*3.08	*6.66	*6.66	*11.94	7.85	*9.21	5.59	7.05	4.26	5.54	3.37	4.51	2.75	4.18	2.54	8.40
-1	*5.53	*5.53	*8.59	*8.59	*12.03	7.77	9.40	5.51	6.98	4.19	5.49	3.33	4.48	2.73	4.39	2.67	8.11
-2	*7.92	*7.92	*11.11	*11.11	*11.71	7.77	*9.28	5.48	6.96	4.17	5.48	3.32			4.76	2.90	7.69
-3	*10.58	*10.58	*14.12	*12.89	*10.99	7.82	*8.81	5.51	6.98	4.19	5.51	3.35			5.41	3.29	7.09
-4	*13.78	*13.78	*12.36	*12.36	*9.77	7.94	*7.86	5.59	*6.29	4.26					*5.86	4.00	6.28
-5			*9.77	*9.77	*7.80	*7.80	*6.10	5.75							*5.85	5.50	5.15

1. Ratings are based on SAE J1097

2. The load point is a hook located on the back of the bucket.

3. \* Rated loads are based on hydraulic capacity.

4. Rated loads do not exceed 86% of hydraulic capacity or 75% of tipping capacity.

:Rating Over Front

:Rating Over Side or 360 degree

#### **COMBO 1**

Boom: 5,700mm Arm: 3,500mm Bucket: SAE/PCSA 0.81m³ (1.1yd³) Shoe: 600mm

unit : 1000kg

unit: 1000kg

A(m)	2			3		4		5		5	7		8		Max. Reach		
	- T	( <del>  </del> -  -	Ъ	( <del>  </del> -  -	- T	<del>[]</del> -8	Ъ	( <del>[-]</del> -8	ŭ	( <del>- -</del> -	- u	( <del>- -</del> -	Ъ	( <del>[-]</del> -0	T	( <del>- -</del> -	A(m)
7									*5.03	4.98					*4.47	*4.47	6.29
6									*5.06	4.96	*4.46	3.80			*4.44	3.79	7.00
5							*5.77	*5.77	*5.37	4.88	*5.13	3.77			*4.51	3.32	7.52
4			*10.28	*10.28	*7.83	*7.83	*6.58	6.36	*5.84	4.76	*5.37	3.70			*4.66	3.03	7.87
3					*9.51	8.64	*7.52	6.12	*6.40	4.62	*5.70	3.62	4.67	2.91	4.59	2.86	8.08
2					*10.98	8.24	*8.41	5.89	*6.95	4.48	5.71	3.54	4.62	2.86	4.47	2.77	8.17
1					*11.86	7.99	*9.07	5.72	7.17	4.37	5.63	3.46	4.58	2.82	4.47	2.75	8.12
0 (Ground)			*5.72	*5.72	*12.14	7.87	*9.43	5.61	7.08	4.29	5.57	3.41			4.59	2.82	7.96
-1	*5.52	*5.52	*8.70	*8.70	*11.96	7.84	9.45	5.56	7.03	4.24	5.54	3.39			4.85	2.98	7.65
-2	*8.80	*8.80	*12.21	*12.21	*11.41	7.87	*9.16	5.56	7.03	4.24	5.56	3.40			5.33	3.27	7.20
-3	*12.33	*12.33	*13.09	*13.09	*10.45	7.95	*8.47	5.61	*6.88	4.29					*6.05	3.78	6.56
-4	*13.90	*13.90	*11.03	*11.03	*8.93	8.10	*7.19	5.72							*6.08	4.77	5.67
-5					*6.36	*6.36									*5.73	*5.73	4.38

#### COMBO 2

Boom : 5,700mm Arm : 2,400mm Bucket: SAE/PCSA 1.05m³ (1.4yd³) Shoe : 600mm unit : 1000kg

A(m)	) 2 3		3	4	1	5		(	5		7	8	3	Ç	9	N	1ax. Rea	ch	
B(m)	- T	(E)-EI	4	( <del>[]</del> =	4	( <u>-</u>	- I	( <del></del>	- I		- E	( <del>[]</del> -8	4	( <del>[]</del> -8	4		- E	( <del></del>	A(m)
8																	*2.97	*2.97	6.61
7											*3.54	*3.54					*2.89	*2.89	7.43
6											*4.04	3.92	*2.98	*2.98			*2.89	*2.89	8.04
5											*4.24	3.86	*3.87	3.05			*2.94	2.72	8.49
4									*4.83	*4.83	*4.57	3.77	*4.39	2.99			*3.03	2.51	8.81
3			*9.80	*9.80	*7.45	*7.45	*6.21	*6.21	*5.46	4.71	*4.97	3.67	*4.64	2.93			*3.18	2.38	9.00
2			*13.13	*13.13	*9.20	8.53	*7.26	6.02	*6.13	4.54	*5.41	3.56	4.63	2.86	*3.62	2.33	*3.38	2.30	9.07
1			*8.04	*8.04	*10.63	8.12	*8.19	5.77	*6.74	4.38	5.63	3.45	4.55	2.79	3.77	2.29	*3.65	2.28	9.03
0 (Ground)	*3.76	*3.76	*7.64	*7.64	*11.54	7.85	*8.87	5.59	7.05	4.25	5.53	3.36	4.49	2.73			3.82	2.31	8.88
-1	*5.45	*5.45	*8.73	*8.73	*11.93	7.71	*9.25	5.47	6.95	4.16	5.46	3.30	4.45	2.69			3.98	2.41	8.61
-2	*7.33	*7.33	*10.55	*10.55	*11.87	7.66	9.30	5.41	6.90	4.12	5.43	3.27	4.44	2.68			4.27	2.58	8.21
-3	*9.47	*9.47	*13.01	12.64	*11.41	7.68	*9.06	5.41	6.90	4.11	5.43	3.28					4.75	2.88	7.66
-4	*12.02	*12.02	*13.59	12.79	*10.51	7.76	*8.40	5.46	*6.83	4.15							5.59	3.39	6.91
-5	*15.24	*15.24	*11.49	*11.49	*9.01	7.91	*7.19	5.57									*5.77	4.36	5.91
-6			*8.30	*8.30	*6.51	*6.51											*5.75	*5.75	4.46



#### COMBO 3

Boom: 5,200mm Arm: 2,000mm Bucket: SAE/PCSA 1.28m³ (1.7yd³) Shoe: 600mm

unit :	1000kg
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A(m)		2		3	4	1		5		5		7		Max.Reach	1
B(m)	4		- u	( <del>-</del>	<u>u</u>	( <del>-</del>	4	( <del>- -</del> -	A(m)						
7													*5.89	5.04	4.99
6							*5.82	*5.82					*5.80	4.23	5.87
5							*6.21	*6.21	*5.89	4.82			*5.83	3.77	6.48
4			*10.34	*10.34	*8.08	*8.08	*6.92	6.35	*6.25	4.73			*5.91	3.50	6.88
3					*9.68	8.71	*7.79	6.14	*6.73	4.62	5.79	3.61	5.62	3.38	7.12
2					*11.12	8.35	*8.63	5.94	*7.23	4.51	5.72	3.55	5.45	3.37	7.22
1					*12.00	8.12	*9.26	5.79	7.22	4.41	5.66	3.49	5.45	3.48	7.17
0 (Ground)			*9.19	*9.19	*12.26	8.01	*9.57	5.70	7.15	4.35			5.65	3.74	6.98
-1	*8.39	*8.39	*13.56	13.10	*12.00	7.99	*9.50	5.66	7.12	4.33			6.10	4.25	6.63
-2	*13.15	*13.15	*14.30	13.21	*11.25	8.04	*8.99	5.69	7.15	4.35			6.98	5.27	6.10
-3	*15.73	*15.73	*12.39	*12.39	*9.88	8.16	*7.83	5.78					*7.19	*7.06	5.33
-4			*9.39	*9.39	*7.41	*7.41							*7.06		4.17

#### COMBO 4

Boom : 5,200mm Arm : 2,400mm Bucket: SAE/PCSA 1.28m³ (1.7yd³) Shoe : 600mm

unit : 1000kg

A(m)		2		3	4	1	-	5		5		7		Max.Reach	١
B(m)	- I	( <del>14</del> 4)	ŭ	( <del>14</del> -8)	T .	( <del>14</del> -11	- I	( <del>14</del> 4)	i i	( <del>14</del> -11	ŭ	( <del>14</del> -11	ŭ	( <del>14</del> -81	A(m)
7													*4.38	^4.38	5.56
6									*5.31	4.93			*4.31	*4.31	6.36
5							*5.72	*5.72	*5.49	4.88			*4.37	3.82	6.92
4					*7.37	*7.37	*6.46	6.44	*5.90	4.79	*5.57	3.71	*4.53	3.44	7.30
3			^12.40	*12.40	*9.02	8.89	*7.38	6.23	*6.43	4.67	5.83	3.64	^4.78	3.22	7.53
2			*9.97	*9.97	*10.61	8.51	*8.31	6.03	^6.99	4.55	5.75	3.58	5.01	3.11	7.62
1			*7.93	*7.93	*11.73	8.24	*9.06	5.86	7.26	4.45	5.68	3.51	5.02	3.10	7.58
0 (Ground)	*4.31	*4.31	*9.47	*9.47	*12.25	8.09	*9.50	5.74	7.17	4.37	5.63	3.47	5.17	3.19	7.40
-1	*7.70	*7.70	*12.35	*12.35	*12.22	8.03	*9.59	5.69	7.13	4.33	5.62	3.45	5.53	3.40	7.07
-2	*11.15	*11.15	*15.20	13.21	*11.69	8.05	*9.27	5.69	7.13	4.34			6.20	3.80	6.57
-3	*15.22	*15.22	^13.54	13.36	*10.59	8.13	*8.42	5.74					*6.83	4.55	5.86
-4	*14.19	*14.19	*10.97	*10.97	*8.64	8.29							*6.90	6.16	4.84

#### COMBO 5

 $Boom: 5{,}700mm \hspace{0.2cm} Arm: 2{,}900mm \hspace{0.2cm} Bucket: SAE/PCSA \hspace{0.1cm} 1{,}2m^3 \hspace{0.1cm} (1.57yd^3) \hspace{0.2cm} Shoe: 800mm \hspace{0.2cm} Arm: 2{,}900mm \hspace{0.2cm} Bucket: SAE/PCSA \hspace{0.1cm} 1{,}2m^3 \hspace{0.1cm} (1.57yd^3) \hspace{0.2cm} Shoe: 800mm \hspace{0.2cm} Arm: 2{,}900mm \hspace{0.2cm} Bucket: SAE/PCSA \hspace{0.1cm} 1{,}2m^3 \hspace{0.1cm} (1.57yd^3) \hspace{0.2cm} Shoe: 800mm \hspace{0.1cm} Arm: 2{,}900mm \hspace{0.1cm} Arm: 2{,}900mm \hspace{0.1cm} Bucket: SAE/PCSA \hspace{0.1cm} 1{,}2m^3 \hspace{0.1cm} (1.57yd^3) \hspace{0.1cm} Shoe: 800mm \hspace{0.1cm} Arm: 2{,}900mm \hspace{0.1cm}$ 

unit : 1000kg

\ \(\lambda(m)\)	1	2		3	4	1		5		5		7	1	3		9		Max. Reac	sh
B(m) A(m)	<u>u</u>	( <del>- -</del> 1	- u	<b>—</b>	- E	<b>(</b>	ū	( <del></del>	Ē	( <del> - -</del> 1	- J	<b>—</b>	- u	( <del>- -</del> 1	ū	( <del> - -</del> 1	-	( <del>- -</del> 1	A(m)
8																	*3.42	*3.42	5.94
7																	*3.31	*3.31	6.85
6									*4.53	*4.53	^4.39	3.94			*4.53		*3.30	*3.30	7.51
5									*4.87	^4.87	*4.69	3.89			^4.87		*3.36	3.08	7.99
4							*5.95	*5.95	*5.37	4.92	*4.99	3.82	^4.50	30.40	^5.37		*3.48	2.83	8.32
3			*11.94	*11.94	*8.57	*8.57	*6.92	6.34	*5.97	4.76	*5.36	3.72	4.81	2.98	*5.97		*3.65	2.67	8.52
2			*7.08	*7.08	*10.19	8.57	*7.89	6.09	^6.58	4.61	*5.75	3.63	4.75	2.93	*6.58		*3.89	2.59	8.60
1			*5.62	*5.62	*11.36	8.24	*8.69	5.88	*7.11	4.48	5.78	3.54	4.69	2.87	*7.11		4.22	2.58	8.56
0 (Ground)	*3.08	*3.08	*6.66	*6.66	*11.94	8.06	*9.21	5.74	7.26	4.38	5.70	3.47	4.64	2.83	7.26		4.31	2.63	8.40
-1	*5.53	*5.53	*8.59	*8.59	*12.03	7.98	19.41	5.66	7.19	4.32	5.66	3.43	4.62	2.81	7.19		4.53	2.75	8.11
-2	*7.92	*7.92	*11.11	*11.11	*11.71	7.98	*9.28	5.64	7.16	4.29	5.65	3.42			7.16		4.91	2.99	7.69
-3	*10.58	*10.58	*14.12	13.22	10.99	8.04	*8.81	5.66	7.19	4.31	5.68	3.45			7.19		5.57	3.39	7.09
-4	*13.78	*13.78	12.36	*12.36	*9.77	8.15	*7.86	5.74	*6.29	4.39					*6.29		*5.86	4.11	6.28
-5			*9.77	*9.77	*7.80	*7.80	*6.10	5.90									*5.85	5.65	5.15

#### **COMBO 6**

Boom : 5,700mm Arm : 2,900mm Bucket: SAE/PCSA 1.2m³ (1.57yd³) Shoe : 800mm

IIDIT	IUUUKQ

A(m)	2 3		4			5		5		7	8	3	N	lax. Reach	1		
B(m)	i i	<u>(id</u> -a	i i	(ii)-a	- i	(iii)	i i	(id)-81	i i	( <del>  - </del> -  -	- i	( <del>-</del>	- i	<u>(</u>	i i	( <del>-</del>	A(m)
7									*5.03	*5.03					*4.47	*4.47	6.29
6									*5.06	*5.06	*4.46	3.90			*4.44	3.89	7.00
5							*5.77	*5.77	*5.37	5.00	*5.13	3.87			*4.51	3.42	7.52
4			*10.28	*10.28	*7.83	*7.83	*6.58	6.51	*5.84	4.88	*5.37	3.80			*4.66	3.12	7.87
3					*9.51	8.85	*7.52	6.27	*6.40	4.74	*5.70	3.72	4.81	2.99	4.73	2.94	8.08
2					*10.98	8.45	*8.41	6.04	*6.95	4.60	5.88	3.64	4.76	2.95	4.61	2.85	8.17
1					*11.86	8.20	*9.07	5.87	7.37	4.49	5.80	3.56	4.72	2.90	4.61	2.84	8.12
0 (Ground)			*5.72	*5.72	*12.14	8.08	*9.43	5.76	7.28	4.41	5.74	3.51			4.73	2.90	7.96
-1	*5.52	*5.52	*8.70	*8.70	*11.96	8.05	*9.46	5.71	7.24	4.36	5.71	3.49			5.00	3.07	7.65
-2	*8.80	*8.80	*12.21	*12.21	*11.41	8.08	*9.16	5.71	7.24	4.36	5.72	3.50			5.49	3.36	7.20
-3	*12.33	*12.33	*13.09	*13.09	*10.45	8.16	*8.47	5.77	*6.88	4.41					*6.05	3.89	6.56
-4	*13.90	*13.90	*11.03	*11.03	*8.93	8.31	*7.19	5.88							*6.08	4.90	5.67
-5					*6.36	*6.36									*5.73	*5.73	4.38

# **EQUIPMENT**

## STANDARD CONFIGURATION

#### **Engine**

- CUMMINS 6BTAA5.9-C178-II (ZE230**C**LC-9)
- ◆ CUMMINS QSB7 (ZE230DLC-9)

#### Unique ZENVAN Features (Standard)

- Auto-Lube system (4L)
- Piping for hammer

#### Hydraulic System

- 3-power mode, 2-work mode, user mode
- Variable power control
- Engine auto idle
- Boom and arm flow regeneration
- Boom and arm holding valves
- Swing anti-rebound valves
- Spare ports (Control valve)
- One-touch power boost

#### Cabin and Interior

- Air suspension seat
- Breaker pedal
- ROPS standard Cabin
- Side mirror
- Rise-up type windshield wiper
- Radio / USB player
- 12 volt power outlet (24V DC to 12V DC converter)
- Electric horn
- All-weather steel cab with 360° visibility
- Sliding fold-in front window
- Sliding side window(LH)
- Lockable door
- Storage compartment & Ashtray
- Sun visor
- Door and cab locks, one key
- Pilot-operated slid-able joystick
- Cabin lights (2 on the top)

#### **Automatic Climate Control**

- Air conditioner & heater
- Defroster
- Starting aid (air grid heater) for cold weather

#### Boom & Arm & Bucket

- 5.7m Boom (Heavy duty)
- 2.9m Arm (Heavy duty)
- 1.2m³ Bucket(Heavy duty)

#### Centralized Monitoring

- Engine speed or trip meter / Accel.
- Engine coolant temperature gauge
- Max power
- Low speed / High speed
- Auto idle
- Air cleaner clogging
- Indicators
- Fuel level gauge
- Hyd. oil temperature gauge
- Fuel warmer
- Warnings
- Communication error
- Low battery
- Clock

#### Safety

- Boom and arm hose rupture protection valve
- Overload warning device
- Travel & swing alarm
- Rotating / Telescopic beacon
- Lock valve
- Rear lamp for number plate
- Large handrails and step
- Convex metal anti-slip plates
- Seat belt
- Hydraulic safety lock lever
- Safety glass
- Hammer for emergency escape
- Right and left rear-view mirrors
- Battery protector cover
- Battery master switch
- Two front working lights (1 boom mounted, 1 front frame mounted)
- Beacon lamp
- Automatic swing brake
- Boom holding system
- Arm holding system
- Two outside rear-view mirror



## **OPTIONAL CONFIGURATION**

#### Others

- Removable clean-out dust net for cooler
- Removable reservoir tank
- Fuel pre-filter
- Fuel warmer
- Self-diagnostics system
- Batteries (2 x 12V x 100 AH)
- Single-acting piping kit (breaker, etc.)
- Accumulator for lowering work equipment
- Tool kit
- Double element air cleaner
- Additional water separator
- Dry type pre cleaner
- Fuel filter
- Dust screen for radiator/oil cooler
- Engine overheat prevention system
- Engine restart prevention system
- Self-diagnostic system
- Alternator (24V, 50 amps)
- Electric horn
- LED working lights (frame mounted 1, boom mounted 2)
- Hydraulic track adjuster
- Track guards
- Greased and sealed track link
- Hydraulic oil tank air breather filter
- Long & Fixed track

#### Counterweight (CWT)

• 5.2 ton CWT

#### TRACK SHOES

- Triple grousers shoes (600mm, 24")
- Track rail guard

#### Boom & Arm

- ⊙ 5.2m Boom
- ⊙ 5.7m Boom⊙ 8.5m Boom
- ⊙ 9.97m Boom
- ⊙ 2.0m Arm
- ⊙ 2.4m Arm⊙ 3.5m Arm
- 6.2m Arm
- ① 7.73m Arm

#### Safety

- Cabin Top/Front guard
- O Travel & swing alarm

#### Others

- O Rain Shield
- ⊙ Steel roof cover
- O Piping for crusher
- Piping for quick clamp
- Piping option
- Breaker with flow control valve Crusher
- Crusher with tilting Rotating
- Clamshell Quick Clamp
- ⊙ 700 / 800mm width shoes
- Fuel filler pump
- Working Lights
- O Counterweight 6.5 tons
- O Counterweight 7.5 tons
- Attachments

# **WORRY-FREE PURCHASE\***

\* The following policy applies only to Countries and Regions with authorized dealers, excluding the 24-month/4000-hour warranty policy.

Zenvan offer durable and efficient excavators with high-quality at an affordable price. Their worry-free purchase options include a comprehensive warranty program and a team of experienced technicians that provide on-site support and maintenance services. They also offer trade-in options and have a high price recovery policy to provide customers with the best value for their old equipment.



# 24 Month Warranty+(standard) Extended Warranty Program

Zenvan offers a standard 24-month warranty or 4000 hours (whichever comes first) on their excavators, providing customers with peace of mind and assurance of the product's quality. Additionally, we have an extended warranty program that customers can opt for to further protect their investment. This program offers extended coverage for repairs and replacements beyond the standard warranty period, providing even more comprehensive protection for the equipment.

## **Trade-in Agreement**

Zenvan offers a trade-in program for their excavators, allowing customers to exchange their old equipment for a new Zenvan excavator. Customers can also choose to trade-in equipment from any other brand, and Zenvan will evaluate and offer a competitive price for the exchange. Additionally, customers who trade in their old Zenvan excavator for a new one can receive an evaluation price that is increased by 5%, providing an added incentive to upgrade to a newer model.



# **Doing Best After-sales Service**

Zenvan offers "CASH COMPENSATION" (during the warranty period) for over 24 hours of downtime, and a backup excavator for over 72 hours of downtime to ensure the project can continue without delay. Members can also enjoy up to a 16% discount on spare parts and up to a 50% discount on service man-hours for more affordable maintenance and repairs.

# **Recovery Policy**

When customers purchase a new excavator from Zenvan, they can also sign a "3/4-YEARS BUYBACK" agreement to participate in the high price recovery policy, which guarantees that their old equipment will have high value when they choose buy new Zenvan excvotor in the future. This provides customers with additional peace of mind and financial incentives to invest in Zenvan excavators





ZENVAN MACHINERY CO., LTD

www.zenvan.cc

Materials and Specifications in the catalogue are subject to change without notice.