

ZAXIS-6 series

HITACHI

Reliable solutions

# ZAXIS190



## HYDRAULIC EXCAVATOR

Model code : ZX190LC-6 / ZX190LCN-6

Engine rated power : 128.4 kW (ISO14396)

Operating weight : 19 600 – 21 600 kg

Bucket ISO heaped : 0.45 – 1.00 m<sup>3</sup>



# ZX190LC-6. NO COMPROMISE

Hitachi has developed unique technology for the Zaxis-6 medium excavator range. As a result, the new ZX190LC-6 is an innovative machine, created with the highest level of performance, but without compromising on the increasing demand for operational efficiency.

The ZX190LC-6 is a typical example of Hitachi's high-quality engineering, and durable and reliable construction equipment. Designed with highly versatile features, it is suitable for a wide range of industry solutions.



6. UNDENIABLE RELIABILITY



8. INDUSTRY-LEADING DURABILITY



10. THE EPITOME OF VERSATILITY





12. COMMITMENT TO QUALITY

14. FIRST FOR TECHNOLOGY



# DEMAND PERFECTION

Developed to perfection at the world's biggest excavator factory, the Hitachi ZX190LC-6 meets the demands of the European construction industry. Using market-leading technology, it delivers exceptional productivity at the lowest possible cost of ownership.



## Optimum performance

Remote monitoring with Global e-Service online application.



## High quality

Only the best design elements and materials.



## Incredible versatility

Tilt and rotary tilt modes complete the attachment support system.



## Lifetime reliability

Reliable components help to prevent oil leaks.



## Ultimate durability

Redesigned lower roller reduces risk of damage.





**User-friendly**

Safety comes first with handrails and a reinforced safety platform.



**Low emissions**

SCR system reduces NOx from exhaust gas.



**Low fuel consumption**

8% fuel saving in ECO mode (6% in PWR mode).



**Excellent efficiency**

TRIAS II reduces total hydraulic loss.



**Engine protection**

High performance and large-capacity fuel circuit.



**Easy maintenance**

Convenient and wide-opening engine cover.



“ We knew we could rely on Hitachi ”

Yves-Pierre Mathieux, owner, Carrière de Cusy

## UNDENIABLE RELIABILITY

The ZX190LC-6 has been designed to achieve optimum levels of availability – no complications, disruptions or unscheduled downtime, just stress-free days on the job site. Built to work efficiently across a wide range of projects, it will deliver a profitable return on investment.

### Easy maintenance

The engine cover can be conveniently opened up fully from the platform. This provides easy access to the engine compartment and other components for routine maintenance.

### Durable hydraulic connection

A rubber hose fitted with a flange has been incorporated into the design of the hydraulic return pipes. These enhance the reliability of the system and reduce the risk of oil leaks.

### User-friendly fuel filter

The main fuel filter screws into place on the ZX190LC-6. This makes it easier to

replace and ensures that dust is prevented from entering the fuel circuit during routine maintenance procedures.

### More efficient cooling

The expansion tank is mounted on top of the engine's cooling system. This revised position means that the air can be completely removed and prevents the engine parts from overheating.

### Strengthened materials

Wear-resistant bushing material on the upper roller improves the durability and reliability of the ZX190LC-6.



Easy access to the engine compartment.





The main fuel filter is easier to replace.



The expansion tank prevents engine parts from overheating.





Redesigned lower roller prevents mud entering and causing damage.



Improved performance derived from the fuel circuit.





**i** Hitachi excavators are evaluated extensively in job site conditions at the Hitachi test site on Hokkaido, the northernmost Japanese island, in temperatures ranging from -25°C to 35°C.



# INDUSTRY-LEADING DURABILITY

The durability of Hitachi Zaxis-6 medium excavators sets them apart from the competition. This comes from decades of experience in manufacturing mechanical and hydraulic excavators, and has given Hitachi its market-leading reputation for the most reliable construction machinery.



## Durable design

The lower roller of the ZX190LC-6 has been redesigned to prevent mud from entering and causing damage to the oil seal. This enhances the long-term durability of the machine.



Reinforced for safer working environment.

## Enhanced fuel circuit

A high performance water separator and cold fuel resistance valve are integrated into the pre-filter for added protection against moisture. In addition, a large capacity electric fuel pump supplies an appropriate amount of fuel to the engine for an improved performance.

## Engine protection

The combustion chamber is made from stronger materials and the revised shape of

the piston is designed to achieve cleaner emissions. These features will further enhance the reliability of the engine.

## Oil leak prevention

The O-rings on the control valve and swing motor are made from fluorine. This highly durable material withstands high oil temperatures and reinforces the parts' reliability to prevent oil leaks.

## Reinforced platform

The covers on the platform walkway have been reinforced. This adds to the high-quality and safe working environment, which provides peace of mind for the operator.





“ They are great to drive, well balanced and smooth ”

Vernon Creed, Works Manager, MJ Church

## THE EPITOME OF VERSATILITY

Hitachi Zaxis-6 medium excavators are the perfect choice for a wide variety of construction applications thanks to their power and performance. The ZX190LC-6 provides a smooth, fast and precise operation, as well as high levels of productivity and fuel efficiency, on a range of projects.

### Greater flexibility

The engine cover can be conveniently opened up fully from the platform. This provides easy access to the engine compartment and other components for routine maintenance.

### Power boost

The tried-and-tested power boost feature has 10% more capacity than the ZX180-3. This increases the capability of the ZX190LC-6 to deliver an enhanced level of excavating performance and lifting power.

### Machine performance

The ZX190LC-6 is equipped with two extra spools in the control valve. This increases versatility by making it easier to install attachments that require multiple, large volumes of oil and on two-piece boom models.

### Better visibility

There are fewer bars on the optional front guard and those remaining are reduced in size – yet retain their rigidity. This helps to minimise any blind spots and improves the operator's visibility.



Two tilt modes add to the versatility of the ZX190LC-6.





Power boost has 10% more capacity.



Minimal blind spots improve visibility.





Superior weather resistance maintains the cab's internal appearance.



Urea is injected into the exhaust gas to reduce emissions.



**i** Comments from customers and Hitachi personnel are reported at monthly product improvement meetings, held at Tsuchiura Works in Japan, to help maintain quality standards.



# COMMITMENT TO QUALITY

Hitachi medium excavators are designed and built at Tsuchiura Works in Japan, the largest facility of its kind in the world, where quality is a top priority. Every model, including the ZX190LC-6, is tested and checked for the highest possible standards of performance, reliability and safety.

## Superior cooling performance

The upper structure benefits from high-quality sealant (around the cooling package) and acoustic materials to eliminate any deterioration caused by heat. These ensure the long-term cooling and low-noise acoustic performance of the ZX190LC-6.

oxide from emissions. This cutting-edge technology not only helps the environment, but also complies with EU Stage IV emission regulations.

## Excellent weather resistance

The cab console has been sculpted in highly durable AES-grade resin. This ensures superior weather resistance and ultimately prevents the sun's ultraviolet rays from damaging the console.

## Ultimate comfort

A fully adjustable seat, spacious cab, ergonomic controls and advanced music system all contribute to the ultimate working environment.

## Reduced emissions

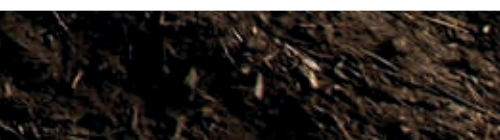
Hitachi has developed a selective catalytic reduction (SCR) system that injects urea into exhaust gas to reduce nitrogen

## Safety at work

The ZX190LC-6 has been fitted with a high-spec rollover protective structure-compliant (ROPS) and centre pillar reinforced structure (CRES V) cab. The pressurised cab is designed to protect the operator from the penetration of dust and potential job site risks.



Ergonomic controls contribute to the ultimate workspace.

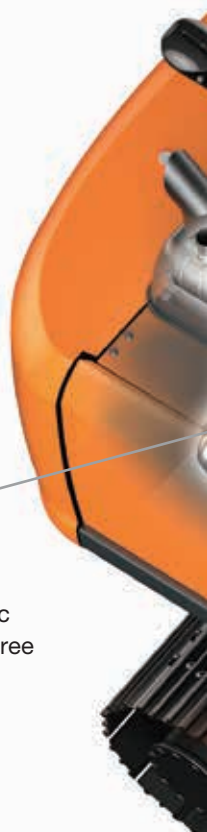






“ *The ZX190LC-6 is fast and precise, thanks to the efficiency of the hydraulic system* ”

Burkhard Janssen, General Manager Product Management & Engineering, Hitachi Construction Machinery (Europe) NV



The TRIAS II hydraulic system consists of three pumps and valves.

## FIRST FOR TECHNOLOGY

Hitachi uses an advanced technological approach to provide reliable solutions for the ever-changing needs of the construction industry. The ZX190LC-6 is a typical example of this approach, and incorporates several examples of unique Hitachi technology, developed especially for the Zaxis-6 medium excavator range.

### **Saving fuel and costs**

Hydraulic loss is decreased by TRIAS II technology. It reduces the hydraulic oil returned to the tank due to the cooperative control of the pump and valve. This helps to lower fuel consumption by 6% in PWR mode with the same productivity

### **User-friendly functionality**

A large seven-inch multi-function LCD monitor provides a wide range of useful technical information. With multi-lingual support in up to 32 languages, it enables operators to check the machine's status and settings at a glance.

### **Remote monitoring**

Global e-Service allows owners to monitor their fleets remotely via Owner's Site (24/7 online access) and ConSite (an automatic monthly report). These help to maximise efficiency, minimise downtime and improve overall performance.

### **Fewer emissions**

The after-treatment device consists of a diesel oxidation catalyst (DOC), urea mixing pipe, SCR system and silencer. This advanced technology helps to reduce emissions and noise levels.

### **Advanced audio system**

The AM/FM radio is accessible from the monitor and an auxiliary socket – for devices such as MP3 players – is linked to the sound system. This choice of entertainment helps to provide an enjoyable – and productive – working environment.



The oil flows separately to the bucket (light blue), arm (dark blue) and boom (yellow) cylinders.

The front attachment moves faster, because each actuator has its own pump.

The pumps are controlled electrically for precise oil flow and lower fuel consumption.

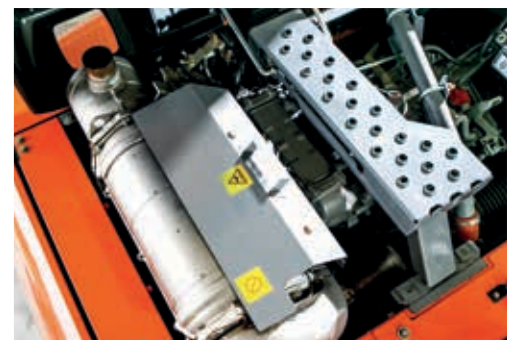
The SCR system injects urea into exhaust gas (red) to reduce nitrogen oxide from emissions.



6% lower fuel consumption in PWR mode with TRIAS II.



The LCD monitor shows the machine's status and settings.



The SCR system reduces emissions and noise levels.





“ *The total cost of ownership is of maximum benefit to our company* ”

Peter Kögel, Member of the Management Board,  
Kögel Bau GmbH & Co. KG

## REDUCING THE TOTAL COST OF OWNERSHIP



Hitachi has created the Support Chain after-sales programme to ensure optimum efficiency, as well as minimal downtime, reduced running costs and high resale values.

### Global e-Service

Hitachi has developed two remote monitoring systems as part of its Global e-Service online application. Owner's Site and ConSite are an integral part of the excavator, which sends operational data daily via GPRS or satellite to [www.globaleservice.com](http://www.globaleservice.com). This allows immediate access to the Owner's Site, and the vital information that is required for support on job sites.

Comparing the ratio of operating and non-operating hours helps to enhance efficiency. Effective management of maintenance programmes helps to

maximise availability. Running costs can also be managed by analysing the fuel consumption. The location and movements of each machine are clearly displayed for essential planning.

An automatic service report – ConSite – sends a monthly email summarising the information from Global e-Service for each machine. This includes: daily working hours and fuel consumption data; statistics on the operating mode ratio, plus a comparison for fuel consumption/efficiency, and CO<sub>2</sub> emissions.

### Technical support

Each Hitachi service technician receives full technical training from HCME in Amsterdam. These sessions provide access to the same technical knowledge available within the Hitachi quality assurance departments and design centres. Technicians combine this global expertise with the local language and culture of the customer to provide the highest level of after-sales support.





Global e-Service



Technical support



Hitachi Parts

## Extended warranty and service contracts

Every new Hitachi Zaxis-6 model is covered by a full manufacturer's warranty. For extra protection – due to severe working conditions or to minimise equipment repair costs – Hitachi dealers offer a unique extended warranty called HELP (Hitachi Extended Life Program) and comprehensive service contracts. These can help to optimise the performance of each machine, reduce downtime and ensure higher resale values.

## Parts

Hitachi offers a wide range and a high availability of parts dispatched from the 53,000 m<sup>2</sup> HCME European Parts Depot in The Netherlands.

- Hitachi Genuine Parts: allow machines to work for longer, with lower running and maintenance costs.
- Hitachi Select Parts and 2Genuine Parts: especially for older machines, they cost less, are of proven quality and come with the manufacturer's warranty.

- Performance Parts: to cope with highly demanding conditions, they have been engineered for greater durability, better performance or longer life.
- Remanufactured components: offering an economically viable solution, they are the best option when preventative replacements are required.

Whatever the choice, the renowned quality of Hitachi construction machinery is assured.





EH dump trucks



EX ultra-large excavators



ZW wheel loaders





“ We develop construction machinery that contributes to the creation of affluent and comfortable societies ”

Yuichi Tsujimoto, HCM President

## BUILDING A BETTER FUTURE

Established in 1910, Hitachi, Ltd. was built upon a founding philosophy of making a positive contribution to society through technology. This is still the inspiration behind the Hitachi group's reliable solutions that answer today's challenges and help to create a better world.

Hitachi, Ltd. is now one of the world's largest corporations, with a vast range of innovative products and services. These have been created to challenge convention, improve social infrastructure and contribute to a sustainable society.

Hitachi Construction Machinery Co., Ltd. (HCM) was founded in 1970 as a subsidiary of Hitachi, Ltd. and has become one of the world's largest construction equipment suppliers. A pioneer in producing hydraulic excavators, HCM also manufactures wheel loaders, rigid dump trucks, crawler cranes and special application machines at state-of-the-art facilities across the globe.

Incorporating advanced technology, Hitachi construction machinery has a reputation for the highest quality standards. Suitable for a wide range of industries, it is always

hard at work around the world – helping to create infrastructure for a safe and comfortable way of living, developing natural resources and supporting disaster relief efforts.

Hitachi Zaxis excavators are renowned for being reliable, durable and versatile – capable of delivering the highest levels of productivity under the most challenging of conditions. They are designed to provide owners with a reduced total cost of ownership, and operators with the ultimate level of comfort and safety.



Mini excavators



# SPECIFICATIONS

## ENGINE

Model .....	Isuzu AR-4HK1X
Type .....	4-cycle water-cooled, common rail direct injection
Aspiration .....	Variable geometry turbocharged, intercooled, cooled EGR
Aftertreatment .....	DOC and SCR system
No. of cylinders .....	4
Rated power	
ISO 14396 .....	128.4 kW at 2 000 min <sup>-1</sup>
ISO 9249, net .....	122 kW at 2 000 min <sup>-1</sup>
SAE J1349, net .....	122 kW at 2 000 min <sup>-1</sup>
Maximum torque .....	670 Nm at 1 600 min <sup>-1</sup>
Piston displacement .....	5.193 L
Bore and stroke .....	115 mm x 125 mm
Batteries .....	2 x 12 V / 126 Ah

## HYDRAULIC SYSTEM

### Hydraulic Pumps

Main pumps .....	3 variable displacement axial piston pumps
Maximum oil flow .....	2 x 212 L/min 1 x 189 L/min
Pilot pump .....	1 gear pump
Maximum oil flow .....	33.6 L/min

### Hydraulic Motors

Travel .....	2 variable displacement axial piston motors
Swing .....	1 axial piston motor

### Relief Valve Settings

Implement circuit .....	34.3 MPa
Swing circuit .....	24.9 MPa
Travel circuit .....	35.5 MPa
Pilot circuit .....	3.9 MPa
Power boost .....	38.0 MPa

### Hydraulic Cylinders

	Quantity	Bore	Rod diameter
Boom	2	120 mm	85 mm
Arm	1	125 mm	90 mm
Bucket	1	105 mm	75 mm
Positioning *	1	150 mm	100 mm

\* : For 2-piece boom

## UPPERSTRUCTURE

### Revolving Frame

D-section frame for resistance to deformation.

### Swing Device

Axial piston motor with planetary reduction gear is bathed in oil. Swing circle is single-row. Swing parking brake is spring-set/hydraulic-released disc type.

Swing speed .....	11.8 min <sup>-1</sup>
Swing torque .....	53 kNm

### Operator's Cab

Independent spacious cab, 1 005 mm wide by 1 675 mm high, conforming to ISO\* Standards.

\* International Organization for Standardization

## UNDERCARRIAGE

### Tracks

Tractor-type undercarriage. Welded track frame using selected materials. Side frame welded to track frame. Lubricated track rollers, idlers, and sprockets with floating seals.

Track shoes with triple grousers made of induction-hardened rolled alloy. Heat-treated connecting pins with dirt seals. Hydraulic (grease) track adjusters with shock-absorbing recoil springs.

### Numbers of Rollers and Shoes on Each Side

Upper rollers .....	2
Lower rollers .....	7
Track shoes .....	46
Track guard .....	1

### Travel Device

Each track driven by 2-speed axial piston motor. Parking brake is spring-set/hydraulic-released disc type. Automatic transmission system: High-Low.

Travel speeds .....	High : 0 to 5.5 km/h Low : 0 to 3.5 km/h
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Maximum traction force .....	203 kN
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Gradeability .....	70% (35 degree) continuous
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## SOUND LEVEL

Sound level in cab according to ISO 6396 ..... LpA 69 dB(A)

External sound level according to ISO 6395 and

EU Directive 2000/14/EC ..... LwA 101 dB(A)

## SERVICE REFILL CAPACITIES

Fuel tank .....	330.0 L
Engine coolant .....	28.0 L
Engine oil .....	23.0 L
Swing device .....	6.2 L
Travel device (each side) .....	6.8 L
Hydraulic system .....	220.0 L
Hydraulic oil tank .....	115.0 L
DEF/AdBlue® tank .....	35.0 L



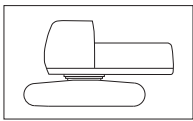
## WEIGHTS AND GROUND PRESSURE

### Operating Weight and Ground Pressure

			ZAXIS 190LC				ZAXIS 190LCN			
Boom type			Monoblock		2-Piece		Monoblock		2-Piece	
Shoe type	Shoe width	Arm length	kg	kPa	kg	kPa	kg	kPa	kg	kPa
Triple grouser	500 mm	2.26 m					19 600	53	20 400	55
		2.71 m					19 600	53	20 400	55
	600 mm	2.26 m	19 900	44	20 700	46	19 800	44	20 600	46
		2.71 m	20 000	45	20 800	46	19 900	44	20 700	46
	700 mm	2.26 m	20 200	39	21 000	40	20 100	38	20 900	40
		2.71 m	20 200	39	21 000	40	20 100	38	20 900	40
	800 mm	2.26 m	20 400	34	21 200	35	–	–	–	–
		2.71 m	20 500	34	21 300	35	–	–	–	–
	900 mm	2.26 m	20 800	31	21 500	32	–	–	–	–
		2.71 m	20 800	31	21 600	32	–	–	–	–

Including 0.70 m<sup>3</sup> (ISO heaped) bucket weight (600 kg) and counterweight (3 500 kg).

### Basic Machine Weight and Overall Width



Excluding front end attachment, fuel, hydraulic oil and coolant etc. Including counterweight.

#### ZAXIS 190LC

Shoe width	Weight	Overall width
600 mm	15 900 kg	2 800 mm
700 mm	16 100 kg	2 900 mm
800 mm	16 400 kg	3 000 mm
900 mm	16 700 kg	3 100 mm

#### ZAXIS 190LCN

Shoe width	Weight	Overall width
500 mm	15 500 kg	2 500 mm
600 mm	15 800 kg	2 580 mm
700 mm	16 000 kg	2 680 mm

### Components Weight

	Weight
Counterweight	3 500 kg
Monoblock boom (with arm cylinder and boom cylinder)	2 030 kg
2-Piece boom (with arm cylinder and boom cylinder)	2 840 kg
Arm 2.26 m (with bucket cylinder)	840 kg
Arm 2.71 m (with bucket cylinder)	900 kg
Bucket 0.70 m <sup>3</sup>	600 kg

## BUCKET AND ARM DIGGING FORCE

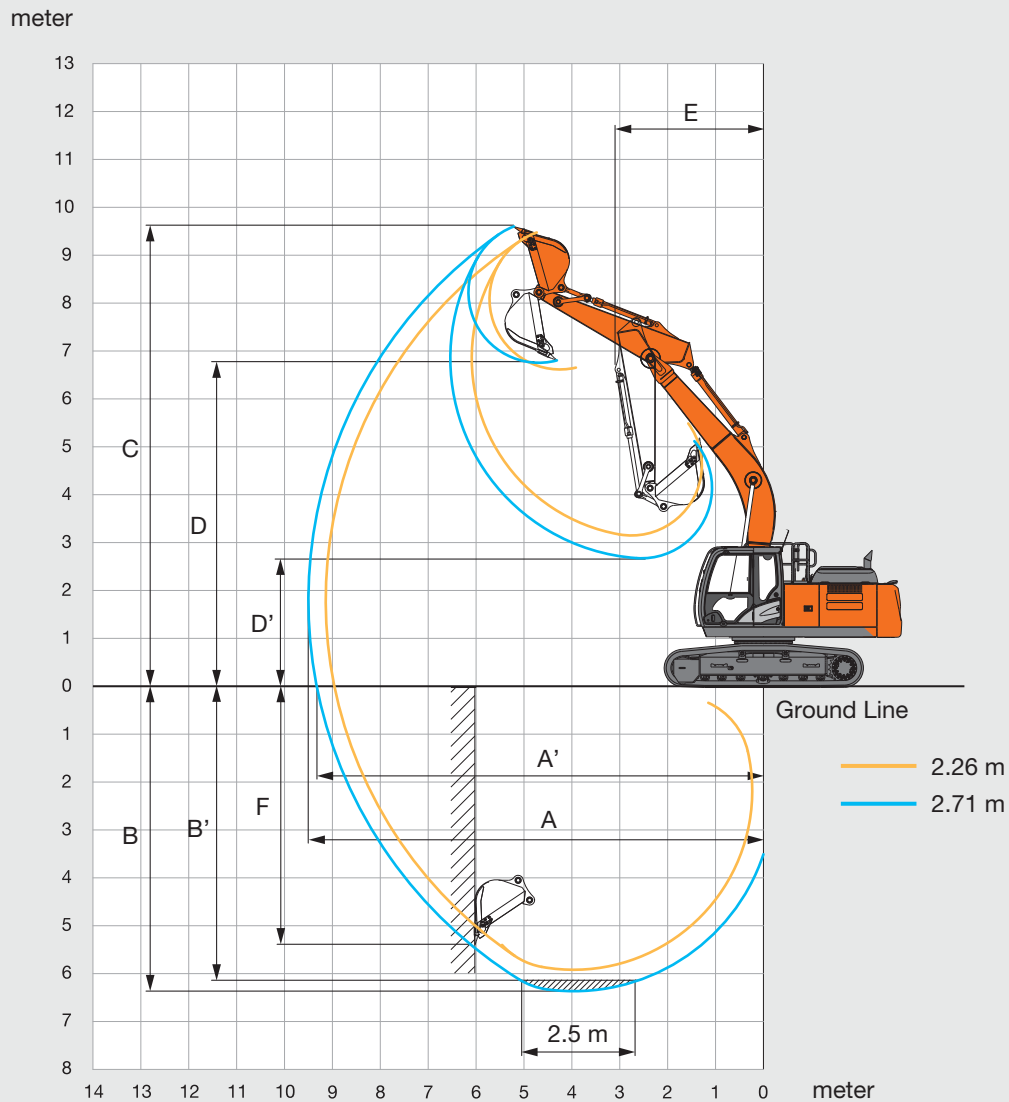
Arm length	ZAXIS 190LC / ZAXIS 190LCN	
	2.26 m	2.71 m
Bucket digging force* ISO	127 kN	
Bucket digging force* SAE : PCSA	112 kN	
Arm crowd force* ISO	108 kN	95 kN
Arm crowd force* SAE : PCSA	104 kN	91 kN

\* At power boost



# SPECIFICATIONS

## WORKING RANGES: MONOBLOCK BOOM



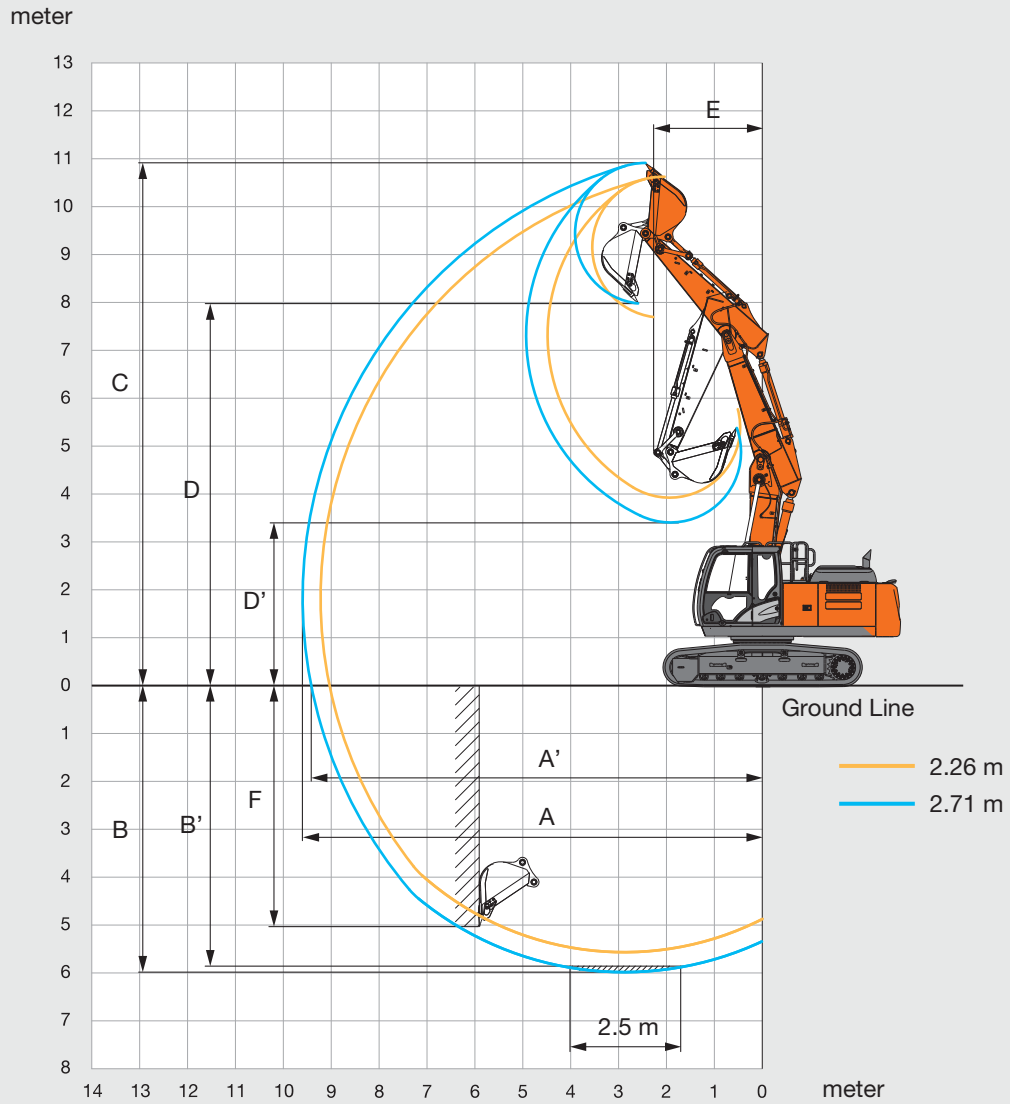
Unit: mm

	ZAXIS 190LC / ZAXIS 190LCN	
	Monoblock boom	
Arm length	2.26 m	2.71 m
A Max. digging reach	9 140	9 500
A' Max. digging reach (on ground)	8 950	9 320
B Max. digging depth	5 900	6 340
B' Max. digging depth for 2.5 m level	5 650	6 100
C Max. cutting height	9 510	9 630
D Max. dumping height	6 640	6 770
D' Min. dumping height	3 170	2 690
E Min. swing radius	3 110	3 100
F Max. vertical wall digging depth	5 110	5 400

Excluding track shoe lug



## WORKING RANGES: 2-PIECE BOOM



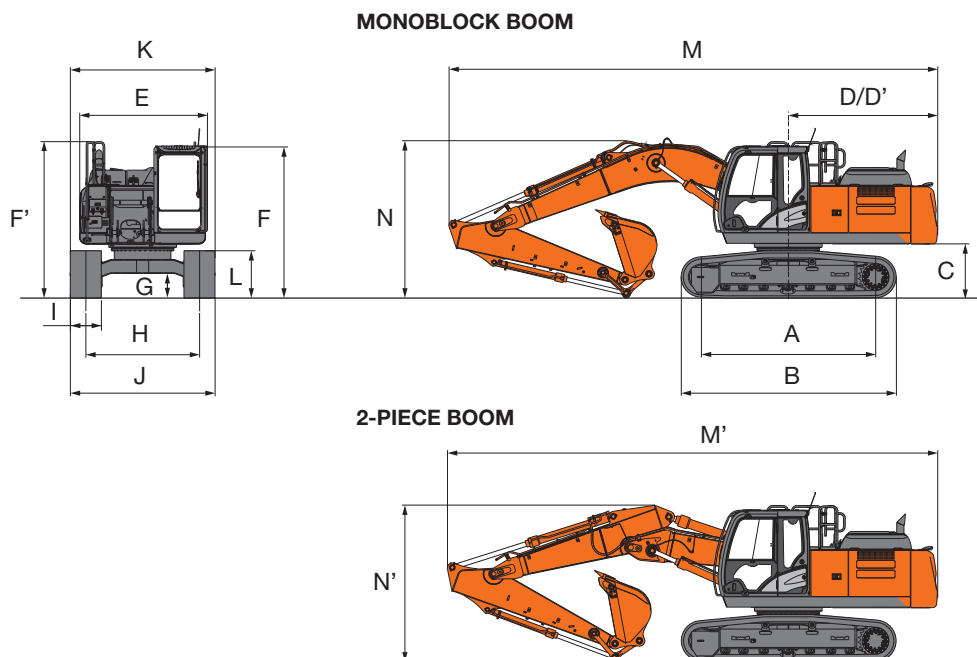
Unit: mm

	ZAXIS 190LC / ZAXIS 190LCN	
	2-Piece boom	
Arm length	2.26 m	2.71 m
A Max. digging reach	9 220	9 590
A' Max. digging reach (on ground)	9 040	9 420
B Max. digging depth	5 570	5 980
B' Max. digging depth for 2.5 m level	5 440	5 870
C Max. cutting height	10 620	10 910
D Max. dumping height	7 700	7 980
D' Min. dumping height	3 920	3 410
E Min. swing radius	2 290	2 270
F Max. vertical wall digging depth	4 630	5 030

Excluding track shoe lug

# SPECIFICATIONS

## DIMENSIONS



Unit: mm

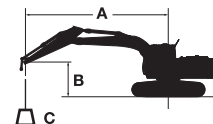
	ZAXIS 190LC	ZAXIS 190LCN
A Distance between tumbler	3 370	3 370
B Undercarriage length	4 170	4 170
* C Counterweight clearance	990	990
D Rear-end swing radius	2 890	2 890
D' Rear-end length	2 890	2 890
E Overall width of upperstructure	2 480	2 480
F Overall height of cab	2 950	2 950
F' Overall height of upperstructure	3 020	3 020
* G Min. ground clearance	450	450
H Track gauge	2 200	1 980
I Track shoe width	G 600	G 500
J Undercarriage width	2 800	2 480
K Overall width	2 800	2 500
* L Track height with triple grouser shoes	920	920
<b>MONOBLOCK BOOM</b>		
M Overall length		
With arm 2.26 m	9 420	9 420
With arm 2.71 m	9 450	9 450
N Overall height of boom		
With arm 2.26 m	3 460	3 460
With arm 2.71 m	3 040	3 040
<b>2-PIECE BOOM</b>		
M' Overall length		
With arm 2.26 m	9 500	9 500
With arm 2.71 m	9 490	9 490
N' Overall height of boom		
With arm 2.26 m	3 030	3 030
With arm 2.71 m	3 040	3 040

\* Excluding track shoe lug    G: Triple grouser shoe



# LIFTING CAPACITIES

- Notes: 1. Ratings are based on ISO 10567.  
 2. Lifting capacity does not exceed 75% of tipping load with the machine on firm, level ground or 87% full hydraulic capacity.  
 3. The load point is the center-line of the bucket pivot mounting pin on the arm.  
 4. \*Indicates load limited by hydraulic capacity.  
 5. 0 m = Ground.



A: Load radius  
 B: Load point height  
 C: Lifting capacity

For lifting capacities, subtract bucket and quick hitch weight from lifting capacities.

## ZAXIS 190LC MONOBLOCK BOOM

Rating over-front Rating over-side or 360 degrees Unit : kg

Conditions	Load point height m	Load radius										At max. reach		
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				meter
Boom 5.50 m Arm 2.26 m Counterweight 3 500 kg Shoe 600 mm	6.0					*6 330	*6 330	*5 700	4 640			*4 450	4 180	6.40
	4.5			*10 370	*10 370	*7 580	7 000	*6 510	4 540			*4 370	3 440	7.17
	3.0					*9 460	6 540	6 620	4 360	4 720	3 150	*4 510	3 100	7.58
	1.5					9 950	6 170	6 420	4 180	4 640	3 080	4 500	2 980	7.66
	0 (Ground)					9 750	6 000	6 290	4 070			4 640	3 060	7.44
	-1.5			*9 020	*9 020	9 730	5 990	6 260	4 040				5 170	3 390
-3.0			*13 230	11 520	*9 710	6 090						6 510	4 220	5.91
Boom 5.50 m Arm 2.71 m Counterweight 3 500 kg Shoe 600 mm	6.0							*4 900	4 700			*3 390	*3 390	6.83
	4.5					*6 910	*6 910	*6 060	4 580	*3 610	3 230	*3 350	3 180	7.56
	3.0					*8 820	6 630	6 650	4 390	4 730	3 150	*3 470	2 890	7.94
	1.5					10 010	6 210	6 430	4 190	4 630	3 060	*3 760	2 780	8.02
	0 (Ground)			*4 760	*4 760	9 740	5 990	6 270	4 050	4 560	3 000	*4 280	2 840	7.82
	-1.5	*5 330	*5 330	*8 790	*8 790	9 670	5 930	6 210	3 990				4 730	3 100
-3.0	*9 490	*9 490	*14 340	11 350	9 750	6 000	6 270	4 040				5 760	3 750	6.38
-4.5			*10 650	*10 650	*7 530	6 230						*6 820	5 640	4.84



## ZAXIS 190LCN MONOBLOCK BOOM













Rating over-front Rating over-side or 360 degrees Unit : kg

Conditions	Load point height m	Load radius										At max. reach		
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				meter
Boom 5.50 m Arm 2.26 m Counterweight 3 500 kg Shoe 500 mm	6.0					*6 330	*6 330	*5 700	4 170			*4 450	3 750	6.40
	4.5			*10 370	*10 370	*7 580	6 250	*6 510	4 070			*4 370	3 080	7.17
	3.0					*9 460	5 800	6 530	3 900	4 650	2 810	*4 510	2 770	7.58
	1.5					9 810	5 440	6 330	3 720	4 570	2 740	4 430	2 660	7.66
	0 (Ground)					9 620	5 280	6 200	3 610			4 570	2 730	7.44
	-1.5			*9 020	*9 020	9 600	5 270	6 170	3 580				5 090	3 010
-3.0			*13 230	9 930	*9 710	5 370						6 420	3 750	5.91
Boom 5.50 m Arm 2.71 m Counterweight 3 500 kg Shoe 500 mm	6.0							*4 900	4 230			*3 390	*3 390	6.83
	4.5					*6 910	6 350	*6 060	4 110	*3 610	2 890	*3 350	2 850	7.56
	3.0					*8 820	5 890	6 560	3 920	4 660	2 820	*3 470	2 570	7.94
	1.5					9 870	5 490	6 340	3 720	4 560	2 730	*3 760	2 470	8.02
	0 (Ground)			*4 760	*4 760	9 610	5 270	6 180	3 590	4 490	2 660	4 240	2 520	7.82
	-1.5	*5 330	*5 330	*8 790	*8 790	9 540	5 210	6 120	3 540				4 660	2 750
-3.0	*9 490	*9 490	*14 340	9 760	9 620	5 280	6 180	3 590				5 680	3 330	6.38
-4.5			*10 650	10 110	*7 530	5 500						*6 820	4 990	4.84



# LIFTING CAPACITIES













## ZAXIS 190LC 2-PIECE BOOM

 Rating over-front  Rating over-side or 360 degrees Unit : kg

Conditions	Load point height m	Load radius										At max. reach		meter
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														
2-Piece Boom Arm 2.26 m Counterweight 3 500 kg Shoe 600 mm	9.0											*6 860	*6 860	2.59
	7.5					*6 110	*6 110					*4 850	*4 850	5.19
	6.0			*6 020	*6 020	*6 360	*6 360	*5 260	4 680			*4 360	4 020	6.49
	4.5			*11 400	*11 400	*7 200	*7 140	*5 510	4 720			*4 250	3 300	7.26
	3.0	*13 500	*13 500	*14 110	12 930	*9 230	6 990	*6 100	4 610	*4 580	3 080	*4 150	2 970	7.66
	1.5			*15 510	12 600	10 280	7 070	6 560	4 400	4 620	3 010	*4 240	2 850	7.74
	0 (Ground)	*13 020	*13 020	*17 320	12 240	*10 240	6 590	6 470	4 160	4 540	2 940	4 520	2 920	7.53
	-1.5	*17 780	*17 780	*17 780	11 720	10 040	6 160	6 280	4 000			5 030	3 240	6.98
	-3.0	*19 460	*19 460	*16 180	11 460	*9 860	6 020					*4 900	4 080	5.96
2-Piece Boom Arm 2.71 m Counterweight 3 500 kg Shoe 600 mm	9.0			*5 440	*5 440							*4 580	*4 580	3.59
	7.5					*5 020	*5 020					*3 590	*3 590	5.74
	6.0					*5 290	*5 290	*4 820	4 740			*3 300	*3 300	6.94
	4.5			*7 920	*7 920	*6 680	*6 680	*5 210	4 780	*3 900	3 190	*3 240	3 050	7.66
	3.0	*13 550	*13 550	*14 500	12 950	*8 400	7 020	*5 770	*4 650	*4 530	3 150	*3 330	2 760	8.04
	1.5	*13 000	*13 000	*15 170	12 610	10 270	*7 050	6 530	4 490	4 650	3 040	*3 560	2 650	8.12
	0 (Ground)	*12 460	*12 460	*16 850	12 460	10 170	6 680	6 470	4 220	4 540	2 930	*4 010	2 700	7.91
	-1.5	*15 360	*15 360	*17 600	11 780	10 120	6 220	6 290	4 000			4 590	2 950	7.40
	-3.0	*16 080	*16 080	*17 130	11 410	9 830	5 970	6 230	3 950			*4 800	3 570	6.49
-4.5			*10 580	*10 580							*9 890	*9 890	3.19	

## ZAXIS 190LCN 2-PIECE BOOM

 Rating over-front  Rating over-side or 360 degrees Unit : kg

Conditions	Load point height m	Load radius										At max. reach		meter
		1.5 m		3.0 m		4.5 m		6.0 m		7.5 m				
														
2-Piece Boom Arm 2.26 m Counterweight 3 500 kg Shoe 500 mm	9.0											*6 860	*6 860	2.59
	7.5					*6 110	*6 110					*4 850	*4 850	5.19
	6.0			*6 020	*6 020	*6 360	*6 360	*5 260	4 210			*4 360	3 600	6.49
	4.5			*11 400	*11 400	*7 200	*6 540	*5 510	4 240			*4 250	2 940	7.26
	3.0	*13 500	*13 500	*14 110	11 410	*9 230	6 330	*6 100	4 130	*4 580	2 740	*4 150	2 630	7.66
	1.5			*15 510	*11 290	10 170	6 300	*6 490	3 920	4 550	2 660	*4 240	2 520	7.74
	0 (Ground)	*13 020	*13 020	*17 320	10 570	*10 240	5 830	6 380	3 690	4 470	2 590	4 450	2 580	7.53
	-1.5	*17 780	*17 780	*17 780	10 090	9 910	5 420	6 200	3 530			4 950	2 860	6.98
	-3.0	*19 460	*19 460	*16 180	9 840	9 740	5 280					*4 900	3 600	5.96
2-Piece Boom Arm 2.71 m Counterweight 3 500 kg Shoe 500 mm	9.0			*5 440	*5 440							*4 580	*4 580	3.59
	7.5					*5 020	*5 020					*3 590	*3 590	5.74
	6.0					*5 290	*5 290	*4 820	4 300			*3 300	3 270	6.94
	4.5			*7 920	*7 920	*6 680	*6 540	*5 210	4 320	*3 900	2 840	*3 240	2 710	7.66
	3.0	*13 550	*13 550	*14 500	11 500	*8 400	6 360	*5 770	4 220	*4 530	2 800	*3 330	2 440	8.04
	1.5	*13 000	*13 000	*15 170	*11 110	10 140	6 430	6 460	4 010	4 580	2 700	*3 560	2 340	8.12
	0 (Ground)	*12 460	*12 460	*16 850	10 780	10 050	5 920	6 390	3 740	4 470	2 590	*4 010	2 380	7.91
	-1.5	*15 360	*15 360	*17 600	10 140	9 980	5 470	6 200	3 530			4 520	2 600	7.40
	-3.0	*16 080	*16 080	*17 130	9 800	9 690	5 230	6 140	3 480			*4 800	3 150	6.49
-4.5			*10 580	9 890							*9 890	8 970	3.19	



# EQUIPMENT

● : Standard equipment

○ : Optional equipment

## ENGINE

Aftertreatment device	●
Air cleaner double filters	●
Alternator 50 A	●
Auto idle system	●
Auto shut-down control	●
Cartridge-type engine oil filter	●
Cartridge-type fuel main filter	●
Cold fuel resistance valve	●
DEF/AdBlue® tank inlet strainer and extension filter	●
DEF/AdBlue® tank with ISO magnet adapter	●
Dry-type air filter with evacuator valve (with air filter restriction indicator)	●
Dust-proof indoor net	●
ECO/PWR mode control	●
Electrical fuel feed pump	●
Engine oil drain coupler	●
Expansion tank	●
Fan guard	●
Fuel cooler	●
Fuel pre-filter with water separator	●
Isolation-mounted engine	●
Maintenance free pre-cleaner	○
Radiator, oil cooler and intercooler	●

## HYDRAULIC SYSTEM

Auto power lift	●
Control valve with main relief valve	●
Full-flow filter	●
High mesh full flow filter with restriction indicator	○
Hose rupture valve for arm	●
Hose rupture valve for boom	●
Pilot filter	●
Power boost	●
Suction filter	●
Swing dampener valve	●
Two extra port for control valve	●
Variable reliefvalve for breaker & crusher	●
Work mode selector	●

## CAB

All-weather sound suppressed steel cab	●
AM-FM radio	●
Ashtray	●
Auto control air conditioner	●
AUX function lever (Breaker assist)	○
AUX terminal and storage	●
Cigarette lighter 24 V	●
CRES V (Center pillar reinforced structure) cab	●
Drink holder with hot & cool function	●
Electric double horn	●
Engine shut-off switch	●
Equipped with reinforced, tinted (green color) glass windows	●
Evacuation hammer	●
Floor mat	●
Footrest	●
Front window washer	●
Glove compartment	●
Hot & cool box	●
Intermittent windshield wipers	●
Key cylinder light	●
Laminated round glass window	○
LED room light with door courtesy	●
OPG front guard Level II (ISO10262) compliant cab	○
OPG top guard Level I (ISO10262) compliant cab	●
OPG top guard Level II (ISO10262) compliant cab	○
Pilot control shut-off lever	●
Power outlet 12 V	○
Rain guard	○
Rear tray	●
Retractable seat belt	●
ROPS (ISO12117-2) compliant cab	●
Rubber radio antenna	●
Seat : air suspension seat with heater	●
Seat adjustment part : backrest, armrest, height and angle, slide forward / back	●
Short wrist control levers	●
Sun visor (front window/side window)	○
Transparent roof with slide curtain	●
Windows on front, upper, lower and left side can be opened	●
2 speakers	●
4 fluid-filled elastic mounts	●

## MONITOR SYSTEM

Alarms: overheat, engine warning, engine oil pressure, alternator, minimum fuel level, hydraulic filter restriction, air filter restriction, work mode, overload, SCR system trouble, etc	●
Alarm buzzers: overheat, engine oil pressure, overload, SCR system trouble	●
Display of meters: water temperature, hour, fuel rate, clock, DEF/AdBlue® rate	●
Other displays: work mode, auto-idle, glow, rearview monitor, operating conditions, etc	●
32 languages selection	●

## LIGHTS

Additional boom light with cover	○
Additional cab roof front lights	○
Additional cab roof rear lights	○
Rotating lamp	○
2 working lights	●

## UPPER STRUCTURE

Batteries 2 x 126 Ah	●
Battery disconnect switch	●
Body top handrail	●
Counterweight 3 500 kg	●
Electric fuel refilling pump with auto stop and filter	●
Fuel level float	●
Hydraulic oil level gauge	●
Lockable fuel refilling cap	●
Lockable machine covers	●
Lockable tool box	●
Platform handrail	●
Rear view camera	●
Rear view mirror (right & left side)	●
Skid-resistant plates and handrails	●
Swing parking brake	●
Undercover	●
Utility space	●

## UNDERCARRIAGE

Bolt-on sprocket	●
Reinforced track links with pin seals	●
Shoe: 600 mm triple grouser : ZX190LC	●
Shoe: 500 mm triple grouser : ZX190LCN	●
Track undercover	○
Travel direction mark on track frame	●
Travel motor covers	●
Travel parking brake	●
Upper and lower rollers	●
1 track guard (each side) and hydraulic track adjuster	●
2 track guards (each side) and hydraulic track adjuster	○
4 tie down brackets	●

## FRONT ATTACHMENTS

Casted bucket link A	●
Centralized lubrication system	●
Dirt seal on all bucket pins	●
Flanged pin	●
HN bushing	●
Reinforced resin thrust plate	●
WC (tungsten-carbide) thermal spraying	●
Welded bucket link A with welded hook	○

## ATTACHMENTS

Accessories for 2 speed selector	●
Additional pump (30 L/min)	○
Assist piping	○
Attachment basic piping	●
Breaker and crusher piping	●
Parts for breaker and crusher	●
Pilot accumulator	○

## MISCELLANEOUS

Global e-Service	●
Onboard information controller	●
Standard tool kit	●

Prior to operating this machine, including satellite communication system, in a country other than a country of its intended use, it may be necessary to make modifications to it so that it complies with the local regulatory standards (including safety standards) and legal requirements of that particular country. Please do not export or operate this machine outside the country of its intended use until such compliance has been confirmed. Please contact your Hitachi dealer in case of questions about compliance.

These specifications are subject to change without notice. Illustrations and photos show the standard models, and may or may not include optional equipment, accessories, and all standard equipment with some differences in color and features. Before use, read and understand the Operator's Manual for proper operation.

