

# **HYDRAULIC EXCAVATOR**

**CX210C / CX220C LC** 



QUALITY YOU CAN TRUST

# **MAIN REASONS**

# TO CHOOSE THE C-SERIES



#### **HIGH PRECISION** AND CONTROLLABILITY

High performance and smooth control.

The CASE Intelligent Hydraulics System is the result of continous research of perfection of a legendary brand. CASE is synonymous and reference in the market for its fastest cycles times, best energy saving performance and smooth control.



#### HIGH EFFICIENCY

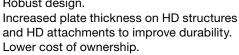
Up to 4% more fuel efficiency due to hydraulic system control and 6% better efficiency from FPT engine. 5 energy saving controls & ECO gauge function enable the continuous monitoring of the fuel consumption.



#### **HIGH RELIABILITY**

Robust design.

With the CASE World Class Manufacturing.





#### COMFORT AND SAFETY

Spacious and safe cab. Low noise and vibrations. Ergonomic workstation. Real time parameters monitoring. With the newly designed cab, fully adjustable seat, joysticks and 7" LCD monitor.





#### **OUTSTANDING VISIBILITY**

Safe and fast operations. More comfort.

With wider glazed area.



#### **FAST CYCLES**

Higher breakout force.
Continuous operations.
Up to 10% higher digging capability.
With A/H/SP working modes and
Auto Power boost.





#### LOW TOTAL COST OF OWNERSHIP

Longer service intervals.
Reduced downtimes.
Fast, easy and safe maintenance operations.
High quality components and service points accessible from the ground.



### **HIGH PRECISION AND CONTROLLABILITY**

The proven CASE Intelligent Hydraulic System (CIHS) delivers impressive machine control with unrivalled energy and fuel savings in all cycle time phases. Two variable displacement axial piston pumps with regulating system are combined with the CASE main valve, designed in Japan for fine, precise and efficient operations.

The Hydraulic system is governed by a Machine Control Unit which collects input from pressure sensors located on pumps, main valve and pilot lines. The Machine Control Unit contentiously dialogue with the Engine Control Unit in order to optimize machine output at any moment in any condition.





# **HIGH EFFICIENCY**

CASE advanced energy management consists of 5 Energy Saving Controls

- Automatic Economy control (AEC): improving fuel efficiency by drop in engine rpm when the joystick is in neutral position.
- Boom Economy Control (BEC): increased fuel efficiency in boom lowering/swinging operations.
- Swing Relief Control (SWC): optimized hydraulic power distribution in slewing operations to deliver the most efficient flow and pressure.
- Spool Stroke Control (SSC): pressure and flow control during digging and leveling operations
- Idle functions
  - Auto Idle: lowers engine rpm after 5 seconds of joystick inactivity;
  - Idle Shutdown: shuts the engine down after a pre-set time.
  - Regenerative: hydraulic circuit for boom, arm & bucket operations for better productivity.

The CX210C/ CX220C LC model is powered by **fuel efficient FPT** (Fiat PowerTrain) Engine, designed to boost machine performances and optimize fuel economy.

The 6 cylinders FPT engine **delivers** outstanding power and torque, that reduces the transient time making the hydraulic system immediately reactive to any load.

Fuel consumption can be constantly monitored by the operator throughout the **new ECO gauge** function, that displays in real time the energy saving level utilized.



# QUALITY YOU CAN TRUST





### **HIGH RELIABILITY**

#### Accurate, robust and simple design for high durability.

- The CX210C/ CX220C delivers leading design solutions.
- Boom & Arm plate thickness increased by 33% and upper-structure has been reinforced in all area with higher stress to increase the durability.
- The boom has high strength casting parts joined with thicker hinge flanges to reduce stress on the structures.
- The arm design features a single side lateral thicker plate, with extra reinforcement plates and grid on bottom side.
- The bucket linkage has a fortified structure and reduced tolerances for increased component life minimizing downtime.
- The anti-friction resin shims in the boom foot and head reduce noise and free play, increasing durability and reliability for the customer.

# New Undercarriage Structure Designed to last!

#### Thicker structural plates and new design:

- The 'sloped' lower frame design reduces the time needed to clean the undercarriage.
- Reinforced idler guards to protect from stones.
- Larger pin diameter to reduce contact surface pressure and increase component life.
- Travel motor case frame with thicker plate for better durability.
- Recoil spring increase stroke for better cushion performance.
- Track guards to keep chain on rollers in any condition.





# **COMFORT AND SAFETY**

- Superior wide & roomy cab with ample legroom, More secure & safe working environment.
- Ergonomically designed seat with 8 different adjustments enhances operator comfort and hence productivity.
- Vibration dampening protects against whole body fatigue for all day productivity.
- Openable roof window to give better visibility on top.
- Fully adjustable right hand console includes advanced engine throttle control, that determines working mode selection. The console is equipped with a luminosity switches to ensure that the graphics are clear and easily readable in bright sunlight.
- New cab has thinner pillars and wide glass areas, including one piece window on right hand side, for improved visibility all round. Longer seat slides, a fully reclining seat and foot space, and air conditioning with 8 outlet vents ensure that any operator can stay comfortable throughout the working day. A clock is included. Storage is provided, with a large box behind the driver's seat and bottle or can holders on front right side.
- Radio's slot, speakers and antenna as standard for an easy radio add on.
- Telematic's predisposition for an easy plug in.







# **OUTSTANDING VISIBILITY**

- Wider glazed surface with two pieces door's window.
- Improved front, top and side visibility Openable roof window to give better visibility on top.
- New 7" LED cluster to constantly monitor the main machine parameters.





# QUALITY YOU CAN TRUST



### **FAST CYCLES**

The advanced hydraulic system offers higher breakout forces, improved swing speeds and greater swing torque, resulting in faster cycle times and 5% increase in productivity.

Power boost function is automatically engaged. The electronic management of speed and power lowers fuel consumption and offers considerable productivity benefits in terms of outputs.



#### **HIGH VERSATILITY**

3 power modes to match any customer need:

- AUTO: for normal digging, grading, lifting and precision work. Power Boost always engaged.
- HEAVY: for heavy operations always granting the best balance between productivity and fuel economy. Power Boost automatically engaged.
- SUPER POWER: extra speed and power for the most demanding jobs that require maximum productivity. Power Boost automatically engaged.

Operators can store up to **10 auxiliary hydraulic flow and pressure settings** to easily switch among different attachments with no need of any mechanical adjustment.



# LOW TOTAL COST OF OWNERSHIP

- All filters and regular check points are grouped and easily accessible from the ground.
- Easy access and centralised lubrication points.
- Battery disconnect switch accessible from ground while servicing the machine.
- Radiator and cooler are mounted side by side for more efficient cooling and easy access for cleaning.
- Machine can be supplied suitable for Tropical climate (from -15°C to +50°C) or Super Tropical climate (from -15°C to +55°C)
- Optional refueling pump with auto cut off reduces downtime for regular fills.





### **ENGINE**

Model	FPT F4HE0687A*J105
Type	_ Water-cooled, 4-cycle diesel,
6-cylinder in line, electronically conti	
rail system, turbocharger, air cooled	l intercooler
Emission certified	Tier 3
Displacement	6.727 L
Bore/Stroke	104 x 132 mm
Horsepower ISO 14396 GROSS_	
Maximum torque ISO 14396 GROS	S 622 Nm at 1800 min <sup>-1</sup>

# **HYDRAULIC SYSTEM**

Type 2 variable displacement axial pi	iston pumps with regulating
system	
Max oil flow	_2 x211 l/min at 1800 min <sup>-1</sup>
Working circuit pressure	
Boom/Arm/Bucket circuit	34.3 MPa
Boom/Arm/Bucket circuit (with auto po	ower up)36.8 MPa
Swing circuit	29.4 MPa
Travel circuit	34.3 Mpa

#### **SWING**

Maximum swing speed	11.5 min <sup>-1</sup>
Swing torque	64,400 N-m

### **FILTERS**

Suction filter_	105 μm
Return filter	6 μm
Pilot line filter	8 μm

### **TRAVEL**

Travel motor	Variable displacement axial piston motor
Max travel speed	5.6 km/h
Low travel speed	3.4 km/h
Gradeability	70% (35°)
Drawbar pull	205 kŃ

### **ELECTRICAL SYSTEM**

Circuit	24V
Alternator	70 Amp
Starter motor	4.0 kW
Battery	2 x 12 V 110Ah

# **UNDERCARRIAGE**

Number of carriers rollers (each side)	2
Number of track rollers (each side) (CX210C / CX220C LC)	7/8
Number of shoes (each side) (CX210C / CX220C LC)	46/49
Type of shoeTriple grouse	er shoe

### **CAPACITIES**

Fuel tank (I)	410
Hydraulic system (I)	295
Cooling system (I)	25
Engine Crank Case (I)	16.5
Hydraulic Tank capacity (I)	162

## WEIGHT AND GROUND PRESSURE

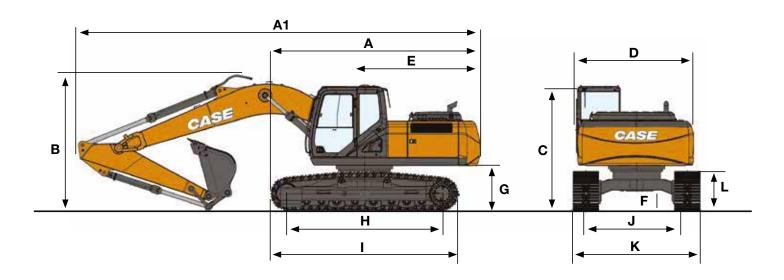
 $2.4\ m$  arm, 1.1 m3 bucket, 600mm triple grouser shoe, operator, lubricant, coolant and full fuel tank.

	CX210C	CX220C LC
Operating Mass	21,600 Kg	22,220 Kg
Ground Pressure	0.048 MPa	0.046 MPa

# **BUCKET SELECTION GUIDE**

Part	Bucket	Type	Application	Material	(Density u	(Density upto in T/		CX220C LC				
Number	Cap (CuM)	Туре	Application	Handled	CuM)			2.40m Arm	2.94m Arm	1.90m Arm	2.40m Arm	2.94m Arm
481256008	1.00	GP	General	Earthwork	А	1.80	А	В	В	А	Α	В
461852008	1.10	GP	Light Duty	Dry, Loose soil	В	1.60	В	С	С	В	С	С
488214008	0.90	HD ROCK	Heavy Duty	Granite/ Marble	С	1.40	А	А	В	А	Α	В
488228008	0.94	HD	Heavy Duty	Stone Rubble	×	N/A	А	А	В	А	А	В

# **GENERAL DIMENSIONS**

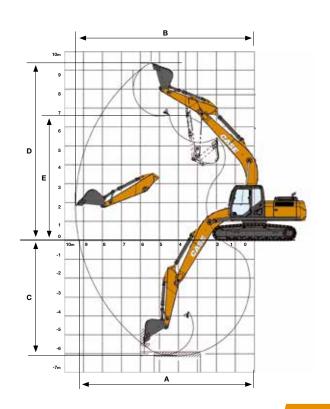


#### **GENERAL DIMENSIONS**

			CX210C			CX220C LC		
			Arm 2.94 m	Arm 2.40 m	Arm 1.90 m	Arm 2.94 m	Arm 2.40 m	Arm 1.90 m
Α	Overall length (without attachment)	mm	4840	4840	4840	4985	4985	4985
A1	Overall length (with attachment)	mm	9430	9510	9520	9430	9510	9520
В	Overall height (with attachment)	mm	2980	3198	3008	2980	3198	3008
С	Cab height	mm	2950	2950	2950	2950	2950	2950
D	Upper structure overall width	mm	2770	2770	2770	2770	2770	2770
E	Swing (rear end radius)	mm	2780	2780	2780	2780	2780	2780
F	Minimum ground clearance	mm	440	440	440	440	440	440
G	Clearance height under upper structure	mm	1040	1040	1040	1040	1040	1040
Н	Wheel base (Center to center of wheels)	mm	3370	3370	3370	3660	3660	3660
I	Crawler overall length	mm	4180	4180	4180	4470	4470	4470
L	Crawler tracks height	mm	920	920	920	920	920	920
J	Track gauge	mm	2200	2200	2200	2390	2390	2390
K	Undercarriage overall width (with 600 mm shoes)	mm	2800	2800	2800	2990	2990	2990

#### **PERFORMANCE DATA**

				CX210C			CX220C LC			
			Arm 2.94 m	Arm 2.40 m	Arm 1.90 m	Arm 2.94 m	Arm 2.40 m	Arm 1.90 m		
	Boom length	mm	5700	5700	5700	5700	5700	5700		
	Bucket radius	mm	1450	1450	1450	1450	1450	1450		
	Bucket wrist action	0	177	177	177	177	177	177		
Α	Maximum reach at GRP	mm	9730	9240	8770	9730	9240	8770		
В	Maximum reach	mm	9870	9380	8910	9870	9380	8910		
С	Max. digging depth	mm	6650	6110	5610	6650	6110	5610		
D	Max. digging height	mm	9610	9410	9140	9610	9410	9140		
Е	Max. dumping height	mm	6810	6590	6330	6810	6590	6330		
	Arm digging force with auto power up	kN	110	132	152	110	132	152		
	Bucket digging force with auto power up	kN	152	152	152	152	152	152		



#### LIFTING CAPACITY

	REACH								
Front 0.0 m	4.5		6.0	6.0 m			7.5 m At max rea		
360°	i	-	·	<b>F</b>	1,3	<b>₽</b> †	ı, ı	<b>-</b>	m
220C LC, ARM 1.90 M, BU	JCKET 1.10	M <sup>3</sup> (868 KG	a), SHOES 6	600 MM					
.5 m							5540*	5540*	4,9
.0 m			5250*	4460			5270*	4130	6,2
.5 m	6910*	6910*	5610*	4340			5280*	3250	7,0
.0 m	8640*	6610	6330*	4200			4800	2850	7,4
,5 m	9860*	6160	6760	4000	4640	2730	4640	2730	7,5
0 m	10140*	6030	6630	3880			4840	2840	7,3
,5 m .0 m	9710* 8410*	6080 6270	6630	3880			5530 6190	3260 4330	6,7 5,7
.5 m	0110	02.10					0100	1000	0,1
 220C LC, ARM 2.40 M, Bl	JCKET 1.10	M <sup>3</sup> (868 KC	S), SHOES (	600 MM					
.5 m							4820*	4820*	5,6
5.0 m			4650*	4530			4640*	3520	6,8
.5 m	6200*	6200*	5130*	4410	4580*	2830	4570*	2830	7,5
.0 m	7950*	6710	5920*	4190	4700	2780	4280	2500	7,9
,5 m	9410*	6200	6680*	3960	4600	2690	4140	2400	8,0
0 m	10020*	5970	6560	3810	4530	2630	4290	2480	7,8
<mark>,5 m</mark>	9860*	5950	6510	3770			4810	2800	7,2
.0 m	8900*	6090	6330*	3860			5770*	3570	6,3
.5 m	6280*	6280*	 				5650*	5650*	4,8
220C LC, ARM 2.94 M, BU	JCKET 1.10	M° (868 KC	i), SHOES (	500 MM					
.5 m			3980*	3980*			3080*	3080*	6,2
.0 m			4060*	4060*			2840*	2840*	7,3
.5 m			4600*	4450	4240*	2860	2820*	2450	8,0
.0 m	7170*	6810	5430*	4200	4610*	2760	2930*	2180	8,4
,5 m	8810*	6230	6290*	3930	4560	2640	3200*	2080	8,5
0 m	9730* 9860*	5900 5800	6490 6400	3730 3650	4460 4430	2550 2520	3670* 4190	2130 2380	8,3 7,8
<mark>,5 m</mark> 3.0 m	9230*	5880	6440	3690	4430	2320	5120	2950	6,9
.5 m	7430*	6140	0440	0000			5470*	4410	5,6
220C LC, ARM 2.94 M, BI	JCKET 1.10	M³ (868 KC	S), SHOES 8	300 MM				1	
7.5 m		`	3980*	3980*			3080*	3080*	6,2
5.0 m			4060*	4060*			2840*	2840*	7,3
.5 m			4600*	4550	4240*	2940	2820*	2530	8,0
3.0 m	7170*	6970	5430*	4300	4610*	2850	2930*	2250	8,4
,5 m	8810*	6390	6290*	4030	4700	2730	3200*	2150	8,5
0 m	9730*	6050	6670	3840	4590	2630	3670*	2210	8,3
,5 m	9860*	5960	6570	3760	4590	2600	4320	2640	7,8
3.0 m	9230*	6040	6620	3800			5270	3040	6,9
<mark>l.5 m</mark>	7430*	6300					5470*	4530	5,6
210C, ARM 1.90 M, BUCK	(ET 1.10M <sup>3</sup> (	868 KG), S	HOES 600	MM					
<mark>.5 m</mark>							5540*	5540*	4,9
3.0 m			5250*	3950			5270*	3650	6,2
<mark>I.5 m</mark>	6910*	6390	5610*	3890			4690	2850	7,0
3.0 m	8640*	5810	6060	3700			4160	2490	7,4
,5 m	9310	5380	5840	3500	4020	2370	4010	2370	7,5
0 m	9150	5250	5720	3390			4180	2470	7,3
,5 m	9210	5300	5720	3390			4780	2840	6,7
.0 m .5 m	8410*	5480					6200	3800	5,7
210C, ARM 2.40 M, BUCK	(ET 1.10M <sup>3</sup> (	868 KG), S	HOES 600	MM					
.5 m							4820*	4570	5,6
.5 III			4650*	4020			4640*	3100	6,8
5 m	6200*	6200*	5130*	3900	4120	2470	4120	2460	7,5
3.0 m	7950*	5910	5920*	3680	4070	2420	3700	2160	7,9
1,5 m	9360	5410	5810	3460	3980	2330	3560	2060	8,0
0 m	9100	5190	5650	3310	3910	2270	3690	2130	7,8
1,5 m	9080	5170	5600	3270			4150	2420	7,2
3.0 m	8900*	5300	5700	3360			5260	3110	6,3
4.5 m	6280*	5640					5650*	5140	4,8

# **QUALITY** YOU CAN TRUST

Front 360°	REACH										
	0.0 m	4.5	4.5 m		6.0 m		7.5 <sub> </sub> m		At max reach		
	<b>P</b>	<sub> </sub>	<b>•</b>	l <sub>I</sub> .	<b>#</b> 1	l <sub>l</sub> u	<b>≑</b> †⊸	ļμ	<del>-</del> -	m	
(210C,	ARM 2.94 M, B	UCKET 1.10M <sup>3</sup>	(868 KG), S	HOES 600	MM						
7.5 m				3980*	3980*			3080*	3080*	6,2	
6.0 m				4060*	4060*			2840*	2630	7,3	
4.5 m				4600*	3940	4170	2500	2820*	2120	8,0	
3.0 m		7170*	6010	5430*	3690	4060	2400	2930*	1860	8,4	
1,5 m		8810*	5440	5790	3430	3930	2280	3150	1770	8,5	
0 m		9030	5110	5570	3240	3830	2190	3240	1820	8,3	
-1,5 m		8930	5030	5480	3150	3800	2160	3590	2030	7,8	
-3.0 m		9020	5100	5530	3200			4410	2550	6,9	
-4.5 m		7430*	5350					5470*	3850	5,6	
K210C,	ARM 2.94 M, B	UCKET 1.10M <sup>3</sup>	(868 KG), S	HOES 800	ММ						
7.5 m				3980*	3980*			3080*	3080*	6,2	
6.0 m				4060*	4060*			2840*	2700	7,3	
4.5 m				4600*	4030	4240*	2570	2820*	2190	8,0	
3.0 m		7170*	6140	5430*	3780	4180	2470	2930*	1930	8,4	
1,5 m		8810*	5570	5940	3520	4050	2350	3200*	1830	8,5	
0 m		9270	5250	5730	3330	3950	2260	3350	1880	8,3	
-1,5 m		9160	5160	5640	3250	3920	2230	3700	2100	7,8	
		9230*	5240	5680	3290			4540	2630	6,9	
-3.0 m											

#### STANDARD EQUIPMENT

Super Tropical package for temperatures -15°C

Turbocharger with air cooled intercooler

Double element air cleaner

Air-pre cleaner - cup type

Pre fuel filter

Fuel filter w/ water separator

Automatic/manual engine return to idle

Neutral safety start Emergency stop

Dial type throttle control

HYDRAULIC SYSTEM 2 variable flow piston pumps

Auto/Heavy/Super Power working modes

Auto power boost

Swing priority (swing+arm)

Travel speed change

Selectable working modes

Pre-set auxiliary pump settings

ISO pattern controls

Arm and boom regeneration Straight travel valve

100% return oil filtration

**CAB AND OPERATOR COMPARTMENT** 

Pre-disposal for the optional cab protection Pressurized cab heat and defrost functions

Tilting consoles - 4-position

Low-effort controls

Sliding cockpit

Mechanical suspended seat

Arm rest

Sun shade

Color LCD monitor display

Auxiliary select system

Aux-in port for personal electronics (12v)

Rubberfloormat

One-piece right hand window

Two piece door window

Roof top openable metal window

Windshield wiper / washer

Storage compartments

Anti-theft device

On-board diagnostic system

Standard handrails

Sliding front window - storable lower

windshield

Rh front console w/ clock and cell phone

holder

Rear mirror (mounted on cab)

Glow-plug pre-heat

**EQUIPMENT AND UNDERCARRIAGE** 

5,70 meter boom

Two lights on cabin top

One light on tool box HD Bucket linkage

Tool box

Sealed and lubricated tracks

Single track guide

600mm triple grouser steel shoes

Rear mirror (mounted on tool box)

#### **OPTIONAL EQUIPMENT**

#### CAB AND OPERATOR COMPARTMENT

Case telematics

Air suspended seat

Cabin Fan

**HVAC** with Auto Climate Control function

High band AM/FM Radio

Tropical package for temperatures -15°C

Cold Package for temperatures -25°C +45°C

Warm up mode

#### **EQUIPMENT AND UNDERCARRIAGE**

Arm 1.90m

Arm 2.40m

Arm 2.94m

Bucket linkage

Bucket 0.9 Cum HD with side cutter

Bucket 0.9 Cum GP

Bucket 1.0 Cum GP

Bucket 1.1 Cum GP

800mm triple grouser steel shoes

Triple track guide

Auxiliary single acting circuit

Auxiliary single or High flow circuit

Refuel pump

Upper front screen (mesh type)

Air-pre cleaner - cyclone type

Side cutter for GP bucket Boom mounted work light (70 watt)

One light on Boom foot

Lower under cover



# BUILDING A STRONG CASE.

Since 1842, at CASE Construction Equipment we have lived by an unwavering commitment to build practical, intuitive solutions that deliver both efficiency and productivity.

We continually strive to make it easier for our customers to implement emerging technologies and new compliance mandates.

Today, our global scale combined with our local expertise enables us to keep customers' real-world challenges at the center of our product development.

The vast CASE dealers' network is always ready to support and protect your investment and exceed your expectations, while also providing you with the ultimate ownership experience.

Our goal is to build both stronger machines—and stronger communities. At the end of the day, we do what's right for our customers and our communities so that they can count on CASE.

#### CaseCE.com

NOTE: Standard and optional fittings can vary according to the demands and specific regulations of each country. The illustrations may include optional rather than standard fittings - consult your Case dealer. Furthermore, CNH Industrial reserves the right to modify machine specifications without incurring any obligation relating to such changes.

Conforms to directive 2006/42/EC