

# CASE

## HYDRAULIC EXCAVATOR **CX800**



Engine Horsepower	369 kW - 495 hp
Operating weight (max)	82 t
Bucket range	2.4 m <sup>3</sup> to 5.3 m <sup>3</sup>

P R O F E S S I O N A L P A R T N E R

## ECONOMY AND PRODUCTIVITY

Six cylinder Tier 3A compliant engine utilises electronic control to optimise performance while minimising fuel consumption, lowering running costs and boosting operating revenues.  
**Power to perform, environmental responsibility.**

## LOWERING OWNERSHIP COSTS

Extended service intervals, ultra-clean hydraulic filters and easy service access cut downtime.  
**Reduced maintenance, increased productivity.**

## RAPID PERFORMER

Twin main pumps offer the hydraulic power to get the job done. Maximum bucket force of 470kN and arm force of 347kN with auto power up provide the breakout for the toughest site conditions.  
**Designed to perform, whatever the task.**

## OPERATOR RESPONSE

Four operating modes match the engine and hydraulic performance to the application. Revolutionary auto setting uses Intelligent Computer Command Control System (ICCCS) to instantly change between modes, offering rapid response. Auto power boost increases power for maximum breakout.  
**Instant power, total control.**

## WORKING ENVIRONMENT

Case operators benefit from superb cab comfort. Climate control, high levels of visibility and isolation mountings make the CX800 the best office on site.  
**Comfortable operator, productive operator.**

## REGULAR MAINTENANCE

Wide opening service panels, with walkways to both sides of the machine, allow excellent levels of service access to engine and hydraulic components. Fan reverse clears debris from the cooling pack on engine start-up. On-board diagnostics monitor machine systems.

**Serviceability, reliability, durability.**

## BUILT TO LAST

Increased strength from top to bottom. Slew bearing hub extends through top plate for added rigidity.

Track guards and strut-type chain links reduce twisting and point loading.

**Heavy duty design, heavy duty construction.**

## RAPID MOVEMENT

Two speed tracking provides speed and gradeability. Oiled track roller bearings reduce heat build up, increasing track life. Variable track width provides stability for heavy digging.

**Strong foundations, sturdy build.**

## POWER TO PERFORM

Structural integrity of work equipment offers high breakout forces with a range of boom and dipper arm configurations.

**Designed to work, built to last.**

## EXTENDED HOURS

1000 hour greasing on boom and arm pins (except bucket). EMS chrome plated pins and brass bushes offer durable solution.

**Minimum downtime, maximum productivity.**



## ENGINE



The Case CX800 is equipped with a proven Isuzu AH-6WG1X diesel engine, providing 495 hp (369 kW) of power at an unstressed 1800 rpm. With high pressure common rail fuel injection, this electronically-controlled engine meets the requirements of the EU directive 97/68/EC Tier 3A on engine emissions.

The Case Intelligent Computer Command Control System (ICCCS), working with electronic engine control, optimises the fuel injection to meet the load on the engine and hydraulic cylinders. This results in a high level of responsiveness for the operator and more efficient use of the engine, reducing fuel consumption and engine emissions.

The engine incorporates an automatic warm-up system, which increases engine speed gradually as the correct operating temperatures are reached, preventing premature wear of engine components.

## HYDRAULIC SYSTEM



Case excavators offer the power and speed to perform, whatever the application. Using an Intelligent Computer Command Control System (ICCCS), the CX800 provides the optimum balance of speed, power and fuel efficiency to meet the operator's needs. Boom priority permits faster cycle times in loading operations as the hydraulic oil is prioritised to the main boom circuit during the raise function. The energy created by oil returning from the boom and the dipper arm is regenerated to increase the excavating speed.

In addition there is an auto power boost function which automatically increases the system pressure by 8-10 per cent to power through heavy ground, or to help with heavy lifting duties.

The CX800 features an ultra-clean 1 micron hydraulic filter, which provides an exceptional level of filtration, even removing water from the oil. This results in extended hydraulic oil life, with change intervals now set at 5000 hours, reducing downtime and cutting operating costs.

## OPERATING MODES



The CX800 enables the operator to have a choice on how the machine is operated. Simply choose the work mode that matches the machine output to the job application.

Four operating modes are available.

### **H Mode (Heavy)**

For heavy excavation or whenever you need extra power.

### **S Mode (Standard)**

For standard digging and loading operations reducing fuel consumption.

### **L Mode (Light)**

For lifting and other operations that need fingertip accuracy.

### **Auto-Mode**

The most revolutionary approach to maximizing power & fuel efficiency available today. Just select the Auto-Mode with the switch panel. Using actual working pressure readings, ICCCS instantly changes modes assuring the best combination of speed and power while you can stay focused on the work at hand.

## OPERATOR'S CAB

As befits a range-topping machine, the CX800's cab offers high levels of comfort, low noise and a climate-controlled working environment. The entire cab is mounted on six shock absorbing rubber and fluid mounts, reducing vibration and noise in the cab for the operator.

A fully adjustable suspension seat is standard equipment, offering height, reach and rake options to ensure that all sizes of operator can find their ideal working position. Automatic climate control maintains the desired temperature in the cab whatever the weather outside.

The cab is a full 1 metre wide, with plenty of room for the operator to store coats and bags out of the working area. Large windscreens and side glazing, along with low bodywork to the rear of the machine, provide excellent all round visibility from the cab. Rear view safety mirrors are also included in the standard specification.



## UNDERCARRIAGE/TRANSMISSION



As the biggest machine in the Case range, the CX800 continues a long tradition of durable, highly productive mining and heavy earthmoving excavators. A modified X-style carbody is welded internally for added strength, and the turntable bearing hub extends down through the top plate of the carbody for additional structural integrity.

The machine has two speed travel motors, with a top speed of 4.2 km/h, making it easy to reposition on site when necessary. The track motors will downshift automatically when climbing, and compact high torque final drives ensure traction on the steepest grades.

## MAINTENANCE/ACCESSIBILITY



There are large, wide opening doors to both sides of the machine, making it easy for technicians to access the engine and hydraulic componentry. The CX800 is equipped with a hydraulically-driven cooling fan, which can be reversed on start-up to blow dust and debris away from the excavator's cooling pack.

The machine benefits from a 900 litre fuel tank, to maximise working time. An auto-stop electric fuel pump is fitted as standard to the machine, to reduce refuelling times and make life easier for the operator.

## IMPROVED PIN AND BUSHING LIFE



All boom pins (except the bucket pins) are extended maintenance system (EMS) chrome plated for increased hardness, with lubricated brass bushings fitted through the boom and dipper. Dust seals are double structured to prevent the ingress of dirt and dust on site.

This combination makes it possible to extend lubrication intervals on the boom pins to six months/1000 hours of operation, cutting downtime and ensuring that the machine keeps working longer.

EMS chrome plated pins with brass bushing



## **ATTACHMENTS/BUCKETS**

CX800 customers can choose from a variety of main booms and dipper arms to suit different applications, all of which are constructed of heavy duty steel box section with internal baffles to increase torsional rigidity. Deep groove welding ensures that the booms and arms can withstand the stress of high breakout forces, heavy lifting and attachments such as hydraulic breakers, compactors, demolition shears and crushers.

With a choice of two main booms and four dipper sticks, along with a range of buckets from 2.4 m<sup>3</sup> - 5.3 m<sup>3</sup>, there is a configuration to meet the requirements of every customer's job site.



CASE



# SPECIFICATIONS

## ENGINE

Latest generation engine, meeting European requirements for "low exhaust emissions" Tier 3A, in accordance with directive 97/68/EC.

Make \_\_\_\_\_ ISUZU  
 Type \_\_\_\_\_ AH-6WG1X  
 Common rail, turbo, intercooler, fuel cooler \_\_\_\_\_ yes  
 Injection \_\_\_\_\_ electronically controlled  
 No. of cylinders \_\_\_\_\_ 6  
 Bore - Stroke \_\_\_\_\_ 147 x 154 mm  
 Cubic capacity \_\_\_\_\_ 15 700 cm<sup>3</sup>  
 Horsepower EEC 80/1269 \_\_\_\_\_ 369 kW/495 hp  
 Engine speed \_\_\_\_\_ 1800 rpm

## HYDRAULIC SYSTEM

Linked to the engine power management electronic system, a second electronic system manages all the hydraulic parameters so as to obtain the highest possible available hydraulic power, under optimum condition of efficiency and economy.

The system consists of two axial piston, variable flow pumps.  
 Max output \_\_\_\_\_ 2 x 500 l/min  
 Max safety valve pressure \_\_\_\_\_  
 Attachment/Auto Power Boost \_\_\_\_\_ 314/343 bar  
 Upperstructure swing \_\_\_\_\_ 279 bar  
 Travel \_\_\_\_\_ 343 bar  
 Oil filtration (Ultra Clean) \_\_\_\_\_ 1 micron

## CONTROL VALVES

4 sections for: RH track travel, boom, bucket, and dipper acceleration.  
 5 sections for: LH track travel, swing, dipper, auxiliary circuit and boom acceleration.

## SWING

Axial piston, fixed flow motor.  
 Max upperstructure swing speed \_\_\_\_\_ 6.4 rpm  
 Swing torque \_\_\_\_\_ 26 500 daN

## TRAVEL

The travel circuit is equipped with two axial piston, variable flow motors.

Planetary reduction gears, automatic multi-disc brake.  
 Max travel speed \_\_\_\_\_ 4.3 kph  
 Low travel speed \_\_\_\_\_ 2.9 kph  
 Speed change is controlled from the instrument panel.  
 Automatic downshift \_\_\_\_\_  
 Gradeability \_\_\_\_\_ 70% (35°)  
 Tractive force \_\_\_\_\_ 56 500 daN

## ELECTRICAL SYSTEM

Circuit \_\_\_\_\_ 24 V  
 Batteries \_\_\_\_\_ 2 x 12 V - 140 A/h  
 Circuit equipped with water-proof connectors  
 Alternator \_\_\_\_\_ 24 V - 50 A/h

## UNDERCARRIAGE

Specifications (per track set):  
 Upper rollers \_\_\_\_\_ 3  
 Lower rollers \_\_\_\_\_ 9  
 Number of track pads \_\_\_\_\_ 51  
 Type of shoes \_\_\_\_\_ Double grouser  
 Standard track pad width \_\_\_\_\_ 750 mm

## CIRCUIT AND COMPONENT CAPACITIES

Fuel tank \_\_\_\_\_ 900 l  
 Hydraulic reservoir \_\_\_\_\_ 310 l  
 Hydraulic system \_\_\_\_\_ 720 l  
 Travel reduction gear (per side) \_\_\_\_\_ 13.8 l  
 Swing reduction gear \_\_\_\_\_ 13.5 l  
 Engine (including filter change) \_\_\_\_\_ 52 l  
 Engine coolant circuit \_\_\_\_\_ 133 l

## TRANSPORT

The variable track width facilitates transportation by reducing, the width to 3.58 m (with 750 mm pads). The CX800 can be equipped (optional) with an auto-demountable counterweight. A system of 3 hydraulically controlled cylinders allows for quick dismounting without the need for any special re-handling machine.

# BUCKETS

### GENERAL PURPOSE

SAE capacity	l	2400	2780	3300	3700	4100	5000
Width	mm	1300	1450	1650	1800	1900	2300
Weight	kg	2960	3110	3400	3540	3640	4120

### HEAVY DUTY WITH TOPLOCK

SAE capacity	l	2550	2960	3510	3900	4210	5330
Width	mm	1300	1450	1650	1800	1900	2300
Weight	kg	3570	3740	-	4290	4410	5020

### VERY HEAVY DUTY WITH TOPLOCK

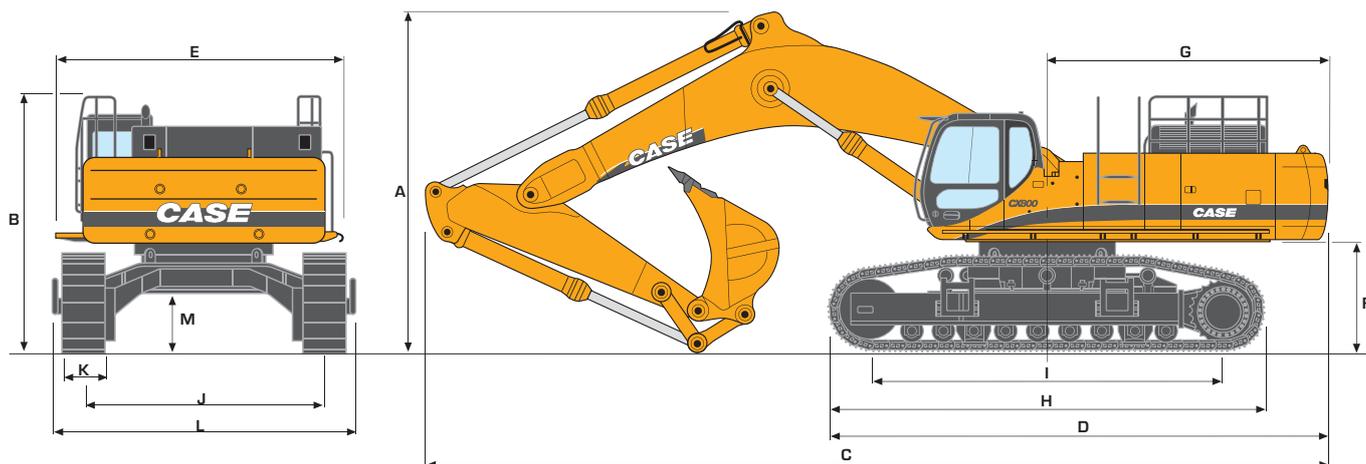
SAE capacity	l	2550	2960	3510	3900	4210	5330
Width	mm	1300	1450	1650	1800	1900	2300
Weight	kg	3570	3740	-	4290	4410	5020

### ROCK

SAE capacity	l	4100
Width	mm	1800
Weight	kg	4500

# GENERAL DIMENSIONS

WITH 7.25 m MASS EXCAVATION BOOM - 2.98 m DIPPER



## DIPPER LENGTH

2.98 m

<b>A</b> Overall height (with attachment)	m	5.05
<b>B</b> Height (cab / handrail)	m	3.56/3.88
<b>C</b> Overall length (with attachment)	m	13.23
<b>D</b> Overall length (w/o attachment)	m	7.46
<b>E</b> Width of upperstructure (without / with cat walks)	m	3.47/4.25
<b>F</b> Upperstructure ground clearance	m	1.59
<b>G</b> Swing (rear end) radius	m	4.28
<b>H</b> Track overall length	m	6.36
<b>I</b> Centre/centre (idler to sprocket)	m	5.07
<b>J</b> Track gauge (work)	m	3.45
(travel)	m	2.83
<b>K</b> Track shoes width (std)	mm	650
<b>L</b> Track overall width (with steps) - Shoes 650 mm (work)	m	4.36
- Shoes 650 mm (travel)	m	3.74
- Shoes 750 mm (work)	m	4.46
- Shoes 750 mm (travel)	m	3.84
<b>M</b> Ground clearance	m	0.89

## WEIGHT AND GROUND PRESSURE

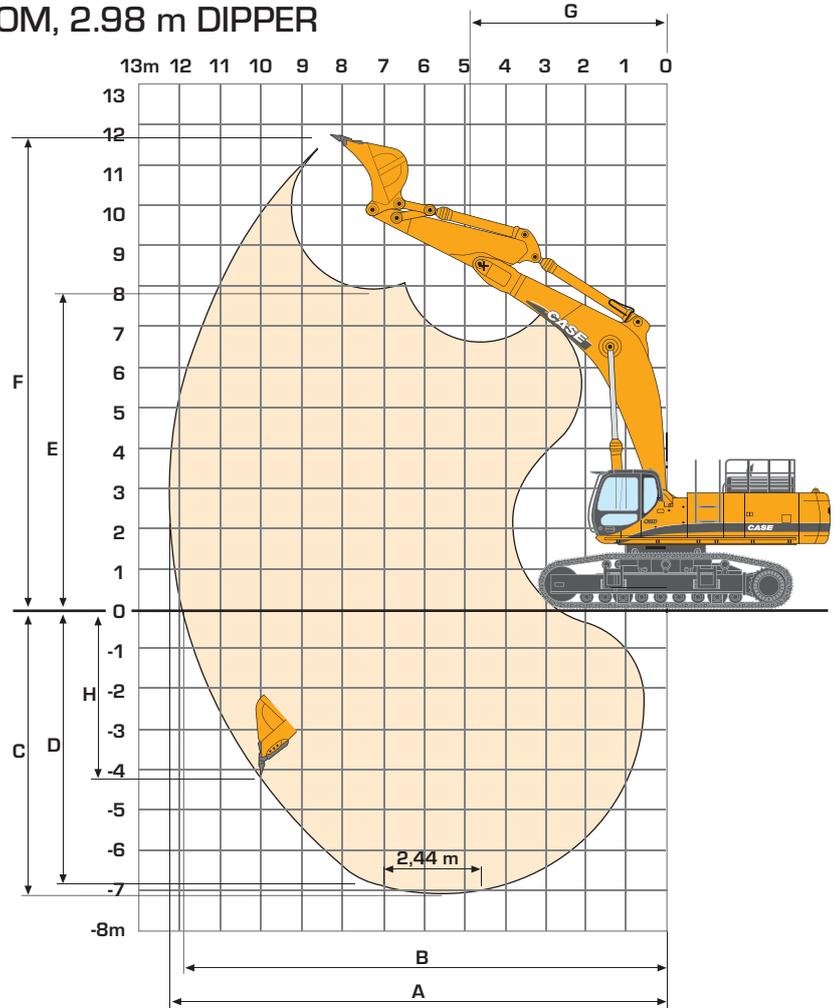
	650 mm		750 mm	
With operator, full fuel tank, lubricant, coolant, bucket*	WEIGHT (kg)	GROUND PRESSURE (bar)	WEIGHT (kg)	GROUND PRESSURE (bar)
Dipper 2.98 m	80 400	1.10	81 100	-

\*Bucket weight: 3400 kg

# CX8000

# PERFORMANCE DATA

WITH 7.25 m MASS EXCAVATION BOOM, 2.98 m DIPPER



## DIPPER LENGTH

2.98 m

A	Maximum digging reach	m	12.31
B	Maximum digging reach at ground level	m	12
C	Maximum digging depth	m	7.03
D	Digging depth - 2.44 m level bottom	m	6.90
E	Max dump height	m	7.89
F	Overall reach height	m	11.75
G	Minimum swing radius - attachment	m	5.40
H	Vertical straight wall dig depth	m	4.25
	Digging force (w/o PowerBoost)	daN	31 700
	Breakout force (w/o PowerBoost)	daN	43 000
	Digging force (with PowerBoost)	daN	34 700
	Breakout force (with PowerBoost)	daN	47 000

# LIFTING CAPACITY

Values are expressed in kilos

Front 360°	REACH						m
	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m	At max reach	

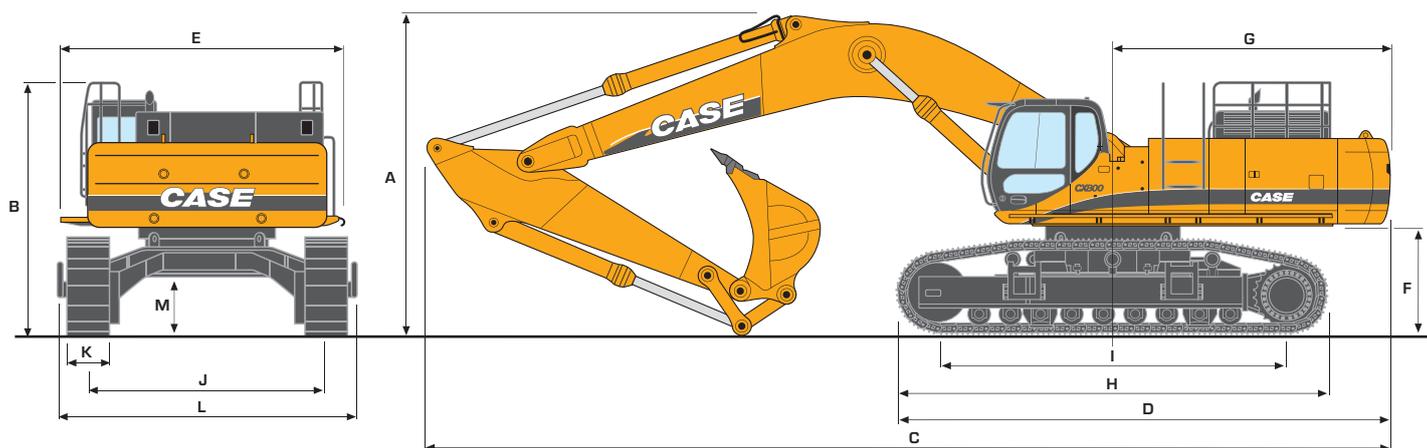
With 7.25 m boom, 2.98 m dipper, 650 mm tracks and 3420 kg bucket

9.0 m										11 976*	11976*	8.14	
7.5 m								12 732*	12 732*	11 874*	11 874*	9.12	
6.0 m						17 690*	17 690*	15 848*	14 948	12 202*	12 202*	9.76	
4.5 m			32 866*	32 866*	23 907*	23 907*	19 383*	19 383*	16 701*	14 302	12 932*	11 502	10.14
3.0 m			37 917*	37 917*	27 009*	26 066	21 097*	18 328	17 618*	13 613	14 144*	10 796	10.29
1.5 m			29 282*	29 281*	29 037*	24 456	22 380*	17 335	18 309*	13 011	15 965*	10 574	10.22
0 m			33 885*	33 885*	29 571*	23 562	22 877*	16 675	18 485*	12 591	16 396*	10 841	9.91
-1.5 m	26 331*	26 331*	37 767*	37 767*	28 597*	23 244	22 326*	16 376	17 786*	12 422	16 838*	11 742	9.35
-3.0 m	37 512*	37 512*	33 497*	33 497*	26 005*	23 387	20 350*	16 449			17 151*	13 693	8.49
-4.5 m			26 845*	26 845*	21 166*	21 166*					16 919*	16 919*	7.21

■ Machine in «LIGHT» mode ■ Lift capacities are taken in accordance with SAE J 1097 / ISO 10567 / DIN 15019-2 ■ Lift capacities shown in kg do not exceed 75% of the tipping load or 87% of the hydraulic lift capacity ■ Capacities that are marked with an asterisk are hydraulic limited

# GENERAL DIMENSIONS

WITH 8.40 m STANDARD BOOM



## DIPPER LENGTH

		3.66 m	4.44 m	5.62 m	
<b>A</b>	Overall height (with attachment)	m	4.81	5.00	6.30
<b>B</b>	Height (cab / handrail)	m	3.56/3.88	3.56/3.88	3.56/3.88
<b>C</b>	Overall length (with attachment)	m	14.36	14.32	13.83
<b>D</b>	Overall length (w/o attachment)	m	7.46	7.46	7.46
<b>E</b>	Width of upperstructure (without / with cat walks)	m	3.47/4.25	3.47/4.25	3.47/4.25
<b>F</b>	Upperstructure ground clearance	m	1.59	1.59	1.59
<b>G</b>	Swing (rear end) radius	m	4.28	4.28	4.28
<b>H</b>	Track overall length	m	6.36	6.36	6.36
<b>I</b>	Centre/centre (idler to sprocket)	m	5.07	5.07	5.07
<b>J</b>	Track gauge (work)	m	3.45	3.45	3.45
	(travel)	m	2.83	2.83	2.83
<b>K</b>	Track shoes width (std)	mm	650	650	650
<b>L</b>	Track overall width (with steps) - Shoes 650 mm (work)	m	4.36	4.36	4.36
	- Shoes 650 mm (travel)	m	3.74	3.74	3.74
	- Shoes 750 mm (work)	m	4.46	4.46	4.46
	- Shoes 750 mm (travel)	m	3.84	3.84	3.84
<b>M</b>	Ground clearance	m	0.89	0.89	0.89

# WEIGHT AND GROUND PRESSURE

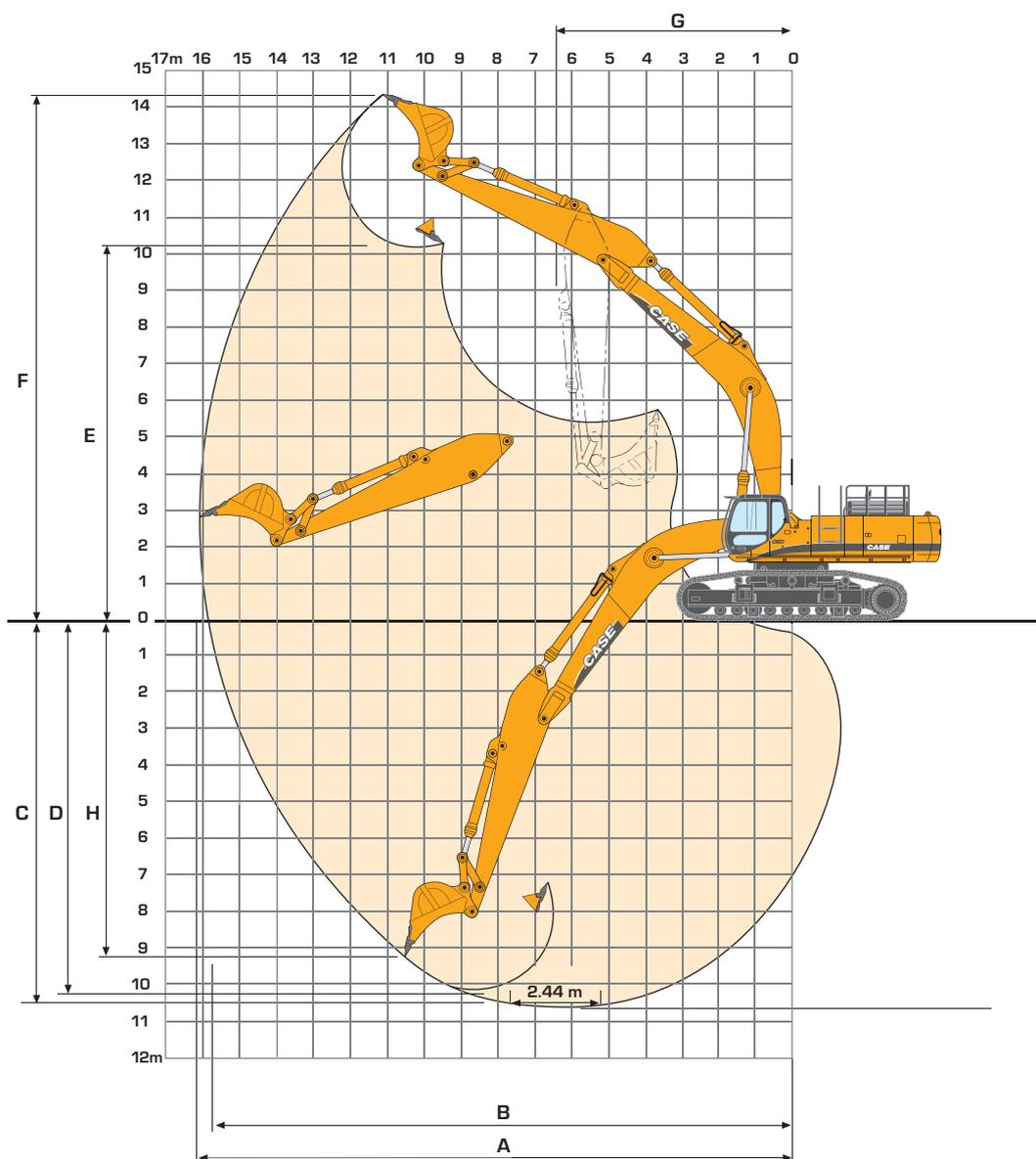
	650 mm		750 mm		900 mm	
	WEIGHT (kg)	GROUND PRESSURE (bar)	WEIGHT (kg)	GROUND PRESSURE (bar)	WEIGHT (kg)	GROUND PRESSURE (bar)
With operator, full fuel tank, lubricant, coolant, bucket*						
Dipper 3.66 m	80 300	1.10	81 100	-	81 500	-
Dipper 4.44 m	80 506	1.10	81 306	-	81 706	-
Dipper 5.62 m	81 073	1.15	81 873	-	82 273	-

\*Bucket weight: 3000 kg

# CX8000

# PERFORMANCE DATA

WITH 8.40 m STANDARD BOOM - 5.62 m DIPPER



## DIPPER LENGTH

		3.66 m	4.44 m	5.62 m	
<b>A</b>	Maximum digging reach	m	14.12	14.94	16.11
<b>B</b>	Maximum digging reach at ground level	m	13.84	14.68	15.86
<b>C</b>	Maximum digging depth	m	8.69	9.47	10.67
<b>D</b>	Digging depth - 2.44 m (8') level bottom	m	8.57	9.36	10.56
<b>E</b>	Max dump height	m	8.92	9.51	10.17
<b>F</b>	Overall reach height	m	12.91	13.60	14.30
<b>G</b>	Minimum swing radius	m	6.27	6.13	6.21
<b>H</b>	Vertical straight wall dig depth	m	6.44	7.75	9.11
	Digging force (w/o PowerBoost)	daN	27 400	23 200	19 500
	Breakout force (w/o PowerBoost)	daN	33 000	33 000	33 000
	Digging force (with PowerBoost)	daN	30 000	25 300	21 400
	Breakout force (with PowerBoost)	daN	36 100	36 100	36 100

# CX8000



# CX800

## STANDARD EQUIPMENT & OPTIONS

### STANDARD EQUIPMENT

#### Hydraulic control

- 4 working modes (3 manual + 1 auto)
- 2 travel speeds with automatic speed change
- Swing brake control
- Load-holding valves on boom and dipper
- Power control - automatic powerboost
- Hydraulic control lever locking, lever position adjustment
- Auxiliary circuit control valve section
- High performance "Ultra Clean" filtration system (1 µ)

#### Engine control

- Common rail engine Tier 3A European Standards
- Electrical control on injection pump
- Automatic / manual engine return to idle
- Fuel level check
- Emergency stop
- Automatic engine pre-heating
- Pump electric fuel fill

#### System Monitor, with 14 language display

- Messages (Function, safety, etc.)
- Working modes (H-S-L and Auto)
- Operating modes (travel mode, swing locking, etc.)
- Audible warning device
- Digital clock
- Water temperature
- Hydraulic oil temperature
- Diagnostic system

#### Electrical system

- Leak-proof connectors
- Double horn

#### Lighting

- 1 working light on the fuel tank
- 2 working lights on the boom
- 2 working lights on the cab

#### Operator environment

- Modern cab, 1 meter wide
- Safety glass
- Suspended cab (6 mounting points with rubber/fluid shock absorbing mountings)
- Windscreen with lockable opening
- "LCD" display
- Water and dust-proof membrane type touch controls
- Windscreen washer and wiper
- Adjustable heater
- Floor mat
- Sun visor
- Rear-view mirror and safety mirrors
- Self adjusting air conditioning
- Anti-theft device

#### Operator seat

- Air suspension
- Height and tilt adjustment
- Adjustable heat-rest
- Adjustable seat-back angle
- Adjustable arm-rests
- Reel-type safety belt

#### Equipment

- EMS Extended Maintenance System (articulation greasing every 1000 hours)

### OPTIONS

- Auxiliary hydraulic circuit
- Possible options and combinations:
  - Hammer circuit with pedal control
  - Track guide (over full chassis length)
- Safety valve
- Auto-demountable counterweight (hydraulic)
- Cab protection
- Windscreen protection

Standard and optional equipment shown can vary by country.

#### Worldwide Case Construction Equipment Contact Information

**EUROPE/AFRICA/MIDDLE EAST:**  
Centre D'affaires EGB  
5, Avenue Georges Bataille - BP 40401  
60671 Le Plessis-belleville - FRANCE

**NORTH AMERICA/MEXICO:**  
700 State Street  
Racine, WI 53404 U.S.A.

**LATIN AMERICA:**  
Av. General David Sarnoff 2237  
32210 - 900 Contagem - MG  
Belo Horizonte BRAZIL

**ASIA PACIFIC:**  
Unit 1 - 1 Foundation Place - Prospect  
New South Wales - 2148 AUSTRALIA

**CHINA:**  
No. 29, Industrial Premises, No. 376,  
De Bao Road, Waigaoqiao Ftz, Pudong,  
SHANGHAI, 200131, P.R.C.

**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 reserves the right to modify machine specifications without incurring any obligation relating to such changes.

#### Case Construction Equipment

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# CASE



Conforms to directive 98/37/CE