

CASE

Hydraulic Excavator

Operating weight: 80 t

Isuzu engine: 331 kW (444 hp)

Backhoe buckets: 2400 to 5000 L

CX800



C O M M I T T E D T O Y O U R N E E D S



ENGINE

Latest generation engine, meeting European standards (Tier II “low smoke emission” regulations).

Make	ISUZU
Type	6WG1TC
Turbo	Yes
Injection	electronically controlled
No. of cylinders	6
Bore - Stroke	147 x 154 mm
Cubic capacity	15682 cm ³
EEC 1289 horsepower	331 kW - 444 hp
Engine speed	1800 rpm

Automatic engine pre-heating provides for optimum and immediate operation as soon as the working temperature is reached; a guarantee of longer life for the engine and the hydraulic components.

The injection pump is directly, electronically controlled by a special calculator which takes the hydraulic system load parameters into account. Regulation is quicker and more efficient than on conventional systems, reducing smoke and noise emissions and also significantly reducing fuel consumption.



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 conditions of efficiency and economy.

The system consists of two axial piston, variable flow pumps.

Max output	2 x 500 l/min
Auxiliary pump flow	27 l/mn
Max safety valve pressure	
Attachment / Power Boost	314/ 343 bar
Upperstructure swing	279 bar
Travel	343 bar

CONTROL VALVES

4 sections for: LH travel, boom, bucket, and dipper acceleration

5 sections for: RH travel, swing, dipper, auxiliary circuit and boom acceleration.

SWING

Axial piston, fixed flow motor

Max upperstructure swing speed 7.6 rpm

Swing torque 24800 daN

Hydraulic system gives priority to the swing when operated simultaneously with the dipper.

Hydrostatic swing brake backed up by mechanical brake during swing stopping and when machine is being transported. Hydrostatic upperstructure braking during working phases, with an “anti-rebound” valve stopping neatly and accurately over a truck body or trench.

Backhoe clamshell circuit operated by means of a manual control on the dipper.

Auxiliary circuit

Using the auxiliary section available as standard, a maximum number of different tools and assemblies can be used, to suit customer requirements (See options).

FILTRATION:

Exceptionally fine protection of all hydraulic system components by means of the “**ULTRA CLEAN**” system (a special filter which removes all particles over 1 micron in size, as well as all traces of water condensation).

The use of this system means the hydraulic fluid retains all its qualities for **5000 hours**, thus reducing servicing intervals and maintenance costs. The hydraulic system is also equipped with an inlet filter, a return filter and a filter on the pilot circuit.



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.

Gradeability 70% (35°)

Tractive force 54400 daN

ELECTRICAL SYSTEM

Circuit.....	24 volts
Batteries	2 x 12 v - 200 A/h
Circuit equipped with water-proof connectors	
Alternator	24 v - 90 A/h

UNDERCARRIAGE

The LC type “X” design; variable width (mechanical) strongly built undercarriage provides for quick travel over all types of work-site and better stability when working or travelling under load.

Perfectly protected motors and piping, a guard underneath the hydraulic swivel, high ground clearance - for easy access to the most difficult work-sites.

Spring-type track tensioning, adjustable by an easily accessible grease cylinder.

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



CAB

Combining comfort, safety and ergonomics, the CX800 cab has been designed to provide the best possible working conditions in a pleasant environment, thus enabling the operator to get the very best out of his machine.

Suspended cab (6 mounting points with rubber/fluid shock absorbing mountings).

Access to the operator's compartment is facilitated by a wide door and the fact that the LH control arm can be raised completely out of the way.

Exceptional cab width (1.00 metre) providing a spacious, airy working space.

Air suspension, ergonomic seat, with multiple adjustments as standard equipment.

The windscreen can be raised and locked in the upper or lower position.

The lower portion of the windscreen can be removed and placed in a storage compartment at the rear LH side of the cab.

The windscreen wiper is mounted on the RH cab pillar. The cab floor is flush with the door sill for easy cleaning. Self-regulating air conditioning, ventilation and defrosting of the cab by adjustable outlets (windscreen, operator, rear of cab).

Radio pre-equipment with loud-speaker housings.

Double sliding window on door.

Wide foot-rest on either side of the travel pedals and levers.

Optional pedal location (hammer, offset, etc.)



COMFORT - OPERATION - SAFETY

The safety console and the control panel are located to the right of the operator.

They include:

A large back-lit LCD screen, clearly displaying messages and indicators covering the vital functions of the machine - in a choice of 14 languages.

Touch controls for work mode, travel speed, automatic mode and emergency stop are provided.

There is also a touch control to select the attachment shock absorbing function; a soft or firm mode can be selected by the operator depending on the work being done.

“Clear language text and symbol” messages, plus an audible warning, enable the operator to check that his machine is operating correctly.

ENGINE RETURN TO IDLE

The engine return to idle can be automatic or manual as required by the operator (control on RH control lever).

ANTI-THEFT PROTECTION

An anti-theft system incorporated into the machine's electronic system is standard equipment.

WORK MODES

Hydraulic power is controlled by the electronic system,



which provides a continuous link between the hydraulics and the engine.

The operator has a choice of 3 “**traditional**” modes, plus one “**automatic**” mode:

H mode (Heavy) uses all the machine’s available power for tough jobs, providing optimum efficiency, high working speed and maximum force.

S mode (Standard) is the “traditional” working mode. It gives 90% of H mode performance (power and speed), and greater fuel economy.

L mode (Light) is the mode to be used for finishing work (sloping banks, profiles, etc), where precision is what is required. It’s also the mode used when handling loads and travelling with loads, due to the reduced flow and the continuous availability of **Power Boost** (maximum pressure applied continuously).

For higher efficiency and maximum use of the machine’s resources, certain functions have been simplified for the operator. This is the case for the Automatic Mode.



The **AUTO mode** on the new CX800 considerably simplifies machine operation, since it enables the working mode to be changed automatically and continuously (without any action on the part of the operator), depending on the type of work being done. Over all the cycles performed, a real reduction in fuel consumption is found compared with continuous use in one single working mode.

AUTO POWERBOOST

To simplify the operator’s work even further, enabling him to get the maximum performance from his machine, CASE uses a totally automatic powerboost. Regardless of the working mode, AUTO POWERBOOST on the CX800 cuts in whenever the machine encounters a difficult obstacle.

For a period of **8 seconds** the force at the dipper and bucket is increased by 8 to 10 %, totally automatically.



EQUIPMENT

The main equipment articulation points are equipped with **EMS** (Easy Maintenance System) special rings enabling greasing intervals to be increased to 1000 hours.



CIRCUIT AND COMPONENT CAPACITIES

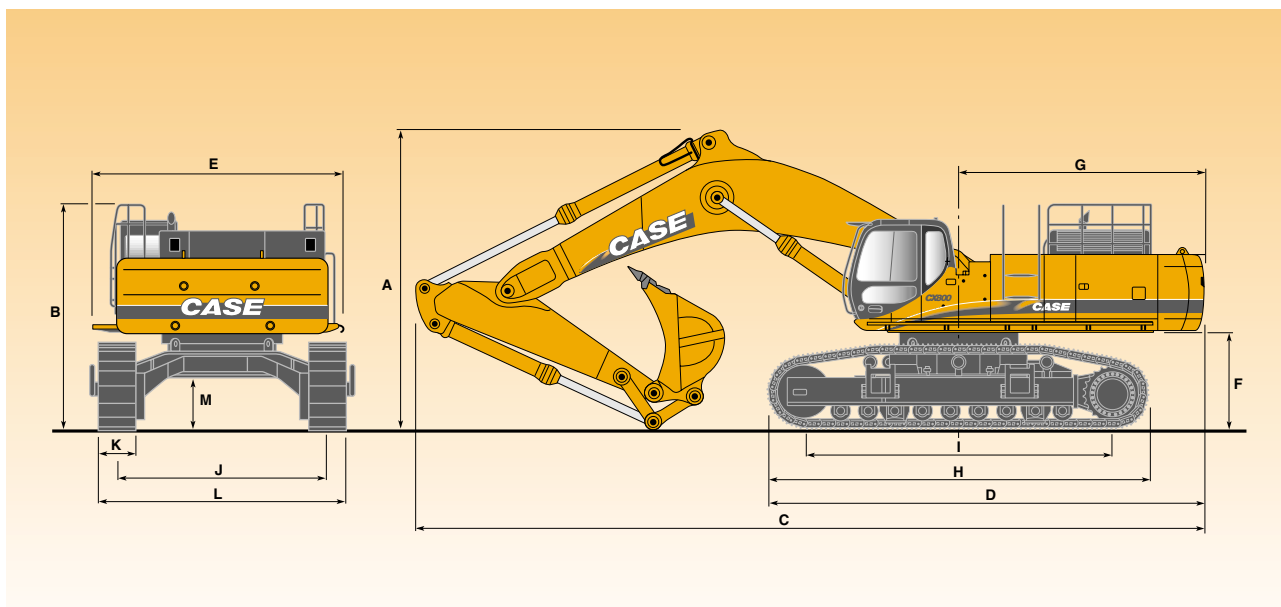
Hydraulic reservoir	310 L
Hydraulic system.....	720 L
Travel reduction gear (per side)	13.5 L
Swing reduction gear.....	13.5 L
Engine (including filter change)	33 L
Fuel tank.....	900 L
Engine coolant circuit.....	100 l

TRANSPORT

The **variable track** width facilitates transportation by reducing, the width to 3.58 m (with 750 mm pads). The CX 800 can be equipped (optional) with an auto-demountable countweight. A system of 3 hydraulically controlled cylinders allows for quick dismounting without the need for any special re-handling machine.



GENERAL DIMENSIONS with 7.25 m boom



A Overall height	Boom 7.25 m/dip. 2.95 m	5.05 m
B Cab height		3.79 m
C Overall length	Boom 7.25 m/dip. 2.95 m	13.02 m
D Overall length (wo/attachment)		7.25 m
E Width of upperstructure (with cat walks)		4.13 m
F Upperstructure ground clearance		1.59 m
G Swing (rear end) radius		4.10 m
H Track overall length		6.36 m
I Centre/centre (idler to sprocket)		5.07 m

J Track gauge	(work)	3.45 m
	(travel)	2.83 m
K Track shoes width (std)		750 mm
L Track overall width		
	Shoes 650 mm (work)	4.10 m
	(travel)	3.48 m
	Shoes 750 mm (work)	4.20 m
	(travel)	3.58 m
M Ground clearance		0.89 m

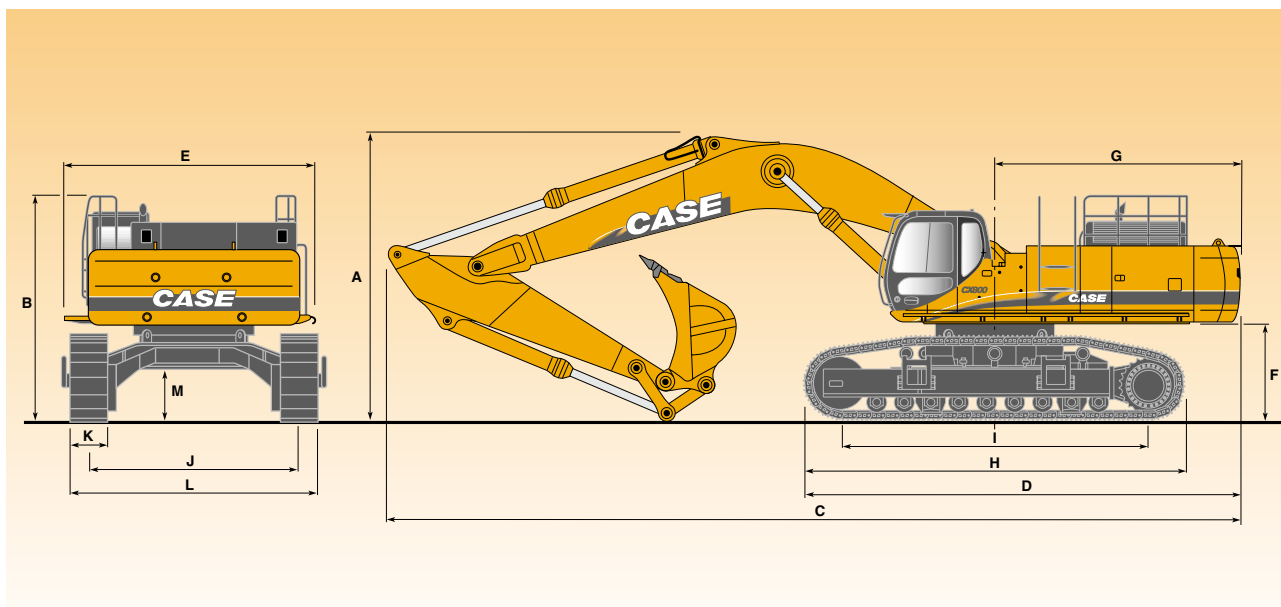


WEIGHT AND GROUND PRESSURE

With operator, full fuel tank and 3300 l bucket	Weight (kg)	Ground pressure (bar)
Dipper 2.95 m - Shoes 650 mm	79000	1.08



GENERAL DIMENSIONS with 8.40 m boom



A	Overall height (Boom 8.40 m/dip. 3.60 m)	4.81 m
B	Cab height	3.79 m
C	Overall length (Boom 8.40 m/dip. 3.60 m)	14.14 m
D	Overall length (wo/attachment)	7.25 m
E	Width of upperstructure (with cat walks)	4.13 m
F	Upperstructure ground clearance	1.59 m
G	Swing (rear end) radius	4.10 m
H	Track overall length	6.36 m
I	Centre/centre (idler to sprocket)	5.07 m

J	Track gauge (work)	3.45 m
	(travel)	2.83 m
K	Track shoes width (std)	750 mm
L	Track overall width	
	Shoes 650 mm (work)	4.10 m
	(travel)	3.48 m
	Shoes 750 mm (work)	4.20 m
	(travel)	3.58 m
M	Ground clearance	0.89 m



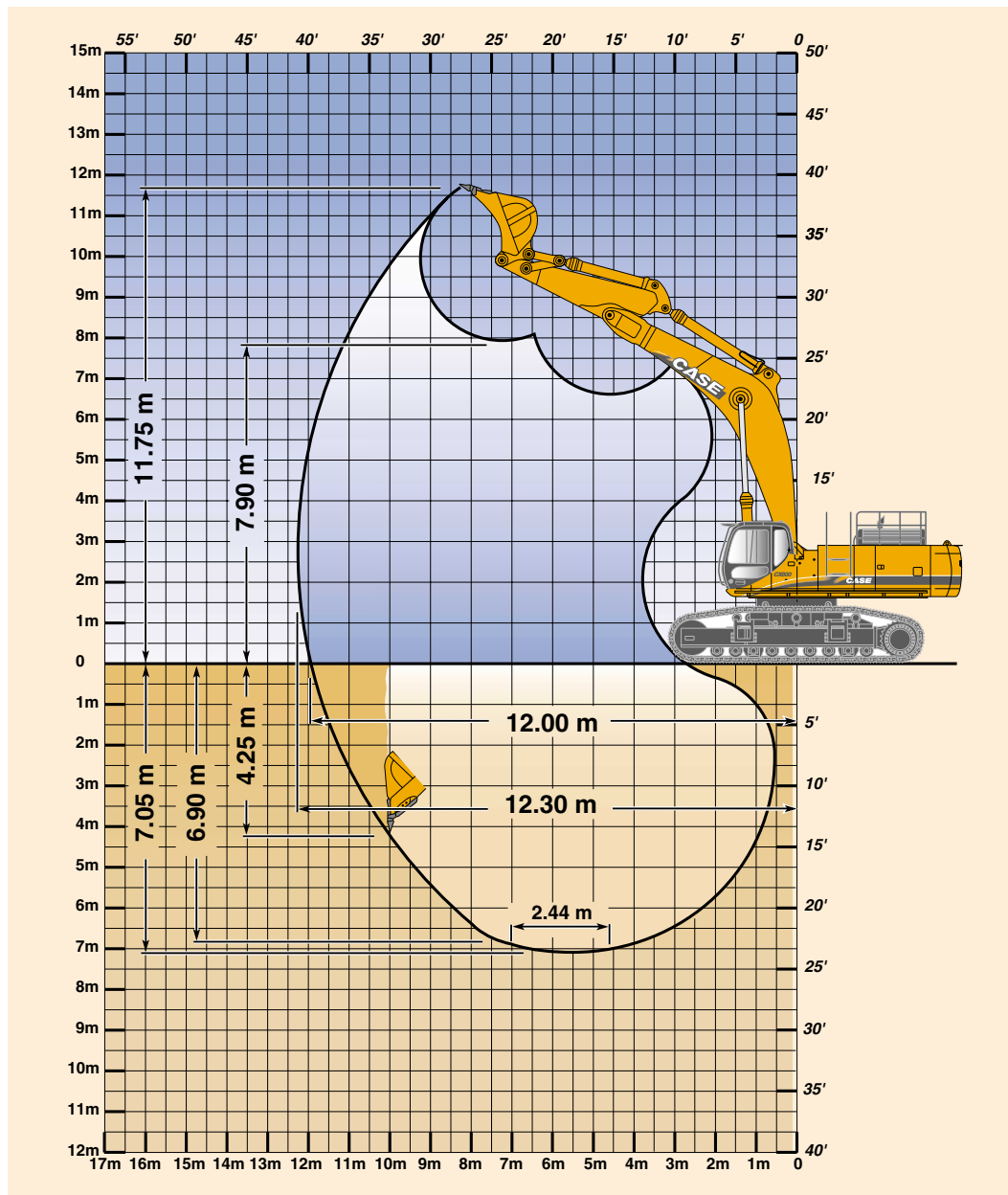
WEIGHT AND GROUND PRESSURE

With operator, full fuel tank and 3300 l bucket	Weight	Ground
	(kg)	pressure (bar)
Dipper 3.60 m - Shoes 650 mm	78600	1.07



PERFORMANCE DATA

with 7.25 m boom , 2.95 m dipper



Digging force 33200 daN
Breakout force 41200 daN



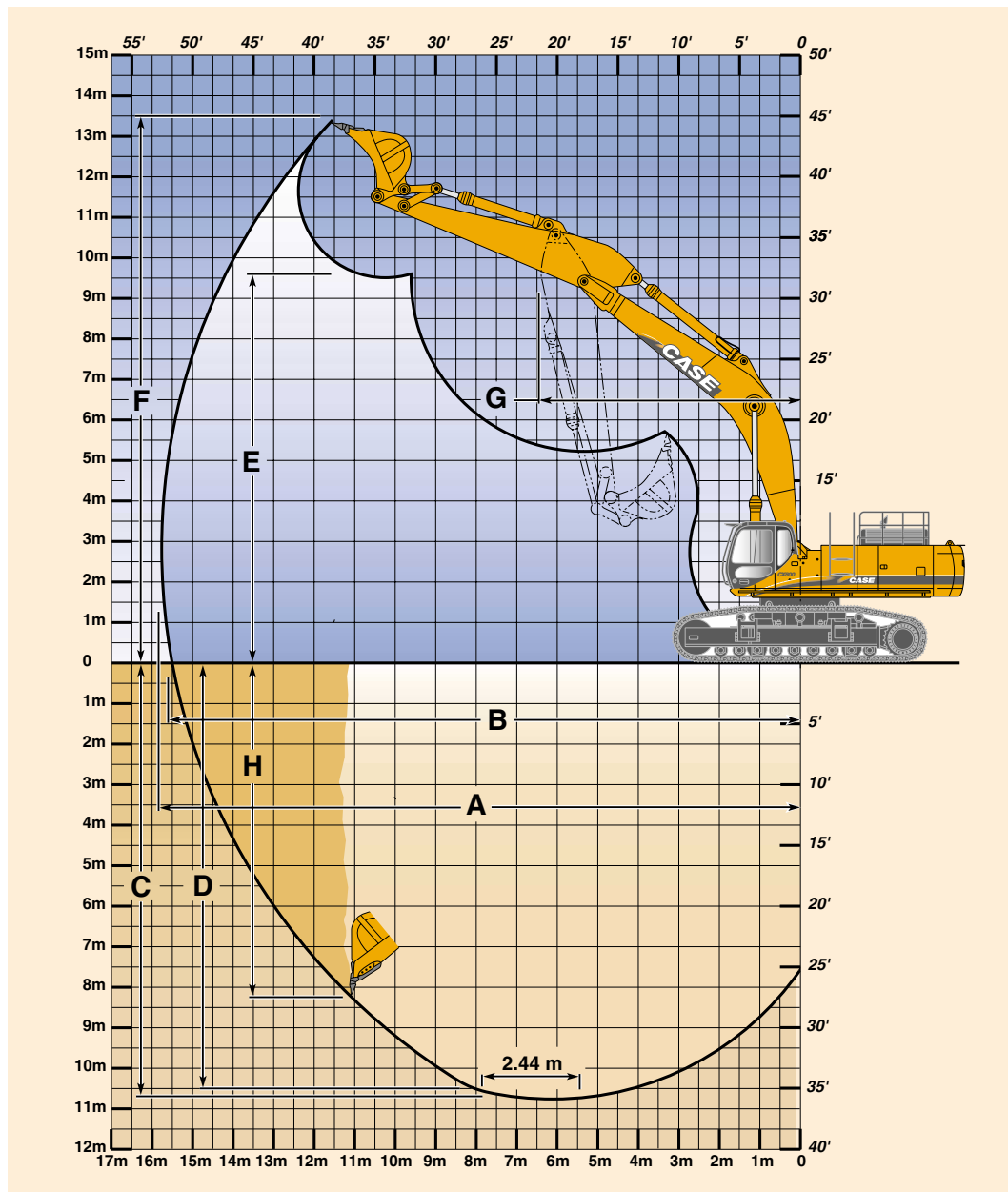
LIFTING CAPACITY

With 7.25 m boom, 2.95 m dipper and 3650 kg bucket.

Reach	3 m		6 m		9 m		max. reach		
Height	Front	360°	Front	360°	Front	360°	Front	360°	Reach
6 m			21200*				14700*	13250	8.90 m
3 m			27200*	22200	17500*	11600	16700*	10650	9.50 m
0 m			28600*	20700	17650*	10750	17500*	10650	9.05 m
-3 m		35400*	23250*	20800			17950*	14450	7.50 m



PERFORMANCE DATA with 8.40 m boom



	dipper	3.60 m	4.40 m	5.60 m
A	Maximum digging reach	14.10 m	14.80 m	15.90 m
B	Maximum digging reach at ground level	13.85 m	14.55 m	15.65 m
C	Maximum digging depth	8.70 m	9.45 m	10.65 m
D	Digging depth - 2.44 m (8') level bottom	8.55 m	9.35 m	10.55 m
E	Max. dump height	8.90 m	9.15 m	9.55 m
F	Overall reach height	12.90 m	13.15 m	13.55 m
G	Minimum swing radius	6.25 m	-	-
H	Vertical straight wall dig depth	6.45 m	7.15 m	8.30 m
	Digging force	29000 daN	24700 daN	20900 daN
	Breakout force	32200 daN	32200 daN	32200 daN



LIFTING CAPACITY with 8.40 m boom

3.60 m dipper - 3400 kg bucket

Reach	3 m		6 m		9 m		12 m		max. reach		
Height	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Reach
9 m					11150*				9150*		9,25 m
6 m			20100*		14200*	12850			9100*		10,70 m
3 m			27000*	21500	16200*	11250			10300*	7800	11,20 m
0 m			28350*	20300	17300*	10300			13350	7650	10,85 m
-3 m			24850*	20250	15800*	10200			14450*	9300	9,60 m
-6 m			15650*						13500*		6,85 m

4.40 m dipper - 3400 kg bucket

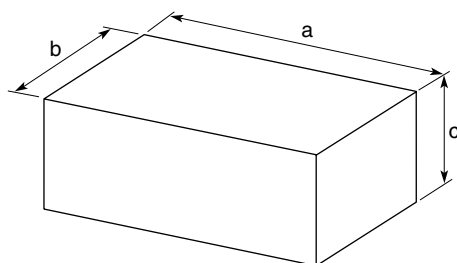
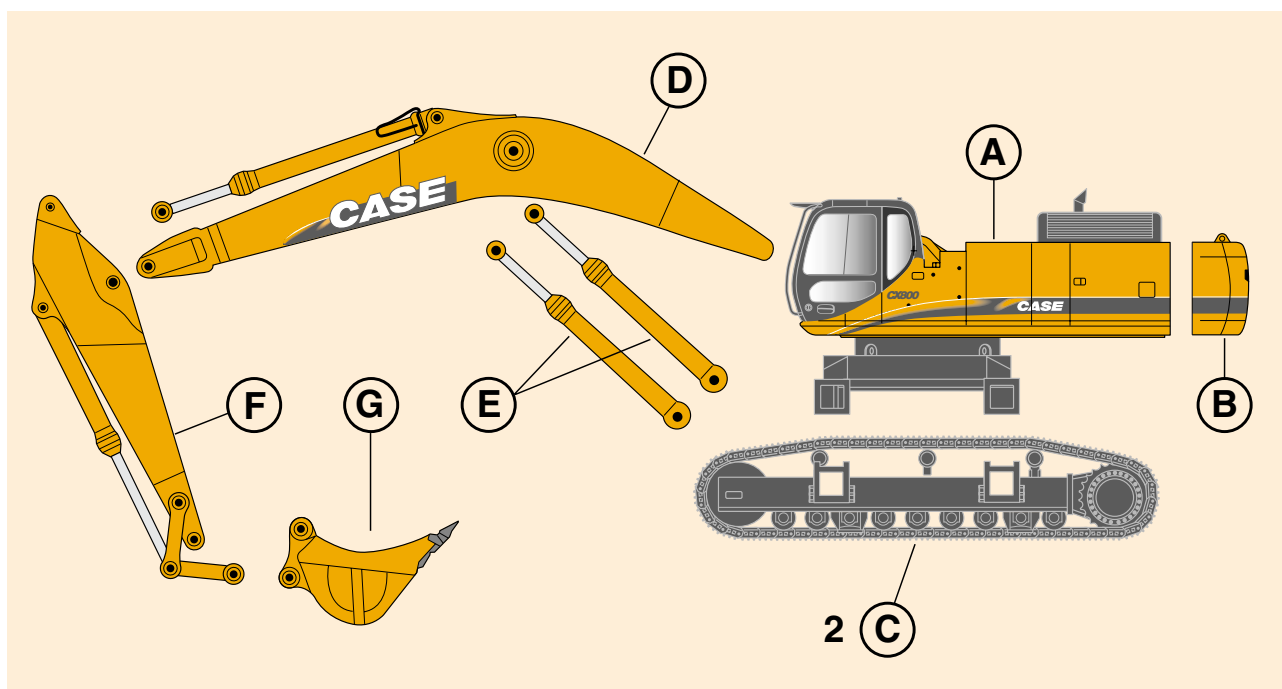
Reach	3 m		6 m		9 m		12 m		max. reach		
Height	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Reach
9 m									5250*		10,30 m
6 m					13050*	12900			4900*		11,65 m
3 m			25200*	21900	15300*	11250	6100*		5200*		12,10 m
0 m			28100*	20050	16850*	10150			6450*		11,75 m
-3 m			25850*	19750	16150*	9800			9850*	7550	10,60 m
-6 m			18400*						12400*	12150	8,20 m

5.60 m dipper - 2960 kg bucket

Reach	3 m		6 m		9 m		12 m		max. reach		
Height	Front	360°	Front	360°	Front	360°	Front	360°	Front	360°	Reach
9 m									3350*		11,85 m
6 m							7600*		2900*		13,00 m
3 m			22600*		14200*	11750	10600*	6850	2900*		13,40 m
0 m			27500*	20400	16400*	10400	11150*	6200	3400*		13,10 m
-3 m			27250*	19600	16700*	9750	5550*		4700*		12,05 m
-6 m	32900*		22150*	20000	13500*	10000			8550*	8450	10,05 m

- 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

TRAVEL



		a	b	c	
A		5.34 m	3.34 m	2.66 m	23300 kg
B		3.35 m	0.83 m	1.26 m	12500 kg
C	(each)	6.36 m	0.75 m	1.50 m	13600 kg
D	7.25 m	7.63 m	1.47 m	2.70 m	7800 kg
	8.40 m	8.78 m	1.47 m	2.46 m	7450 kg
E	(2)	2.94 m	0.87 m	-	1550 kg
F	2.95 m	4.41 m	0.80 m	1.66 m	4150 kg
	3.60 m	5.11 m	0.80 m	1.55 m	3800 kg
G		See bucket table			
safety rails/other		-	-	-	250 kg

General duty

SAE capacity	Litres	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 Toplok

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

Heavy very duty with Toplok

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

Rock

SAE capacity	Litres	-	-	-	-	4100	-
Width	mm	-	-	-	-	1800	-
Weight	kg	-	-	-	-	4500	-



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

- Engine to Tier II standard
- Calculator 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 light on the boom
- 2 working light on the cab

Operator environment

- Modern cab, 1 metre 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 head-rest
- Adjustable seat-back angle
- Adjustable arm-rests
- Reel-type safety belt

Equipment

- EMS system (articulation greasing every 1000 hours)

OPTIONS

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

Standard and optional equipment can vary from country to country

Conforms to directive 98/37/CE



NOTE: Standard and optional attachments and equipment may vary according to requirements and regulations from country to country. The photos given may show non standard or unmentioned items. Furthermore CASE reserves its right to modify specifications of its machines without prior warning, without incurring any obligation whatsoever that might result from such modifications.



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