

CASE

HYDRAULIC EXCAVATOR CX700



Engine Horsepower	345 kW - 462 hp
Operating weight (max.)	69 t
Bucket capacity	1,7 m ³ to 4,55 m ³

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

ECONOMY AND PERFORMANCE

Electronically-controlled Tier 3A compliant engine featuring common rail diesel injection, for high performance with maximum fuel economy, resulting in improved productivity and lower emissions. **Right for your job site, right for the environment.**

FASTER CYCLE TIMES

Intelligent Computer Command Control System (ICCCS) offers optimum balance of speed, power and control, while ensuring maximum fuel economy in all conditions. Boom priority and hydraulic flow regeneration system increase speed, reducing cycle times and increasing performance. **Power on command, control at all times.**

REDUCED OWNERSHIP COSTS

Extended service intervals and ultra-clean 1 micron hydraulic filter result in 5,000 hour hydraulic oil changes, keeping the machine working even in the harshest operating conditions. **Maximum productivity, minimum downtime.**



EASE OF OPERATION

Four engine and hydraulic operating modes allow the operator to match the machine's performance to the individual job application. Revolutionary auto setting uses ICCCS to instantly change between modes, offering rapid response to changing site conditions. Auto power boost automatically increases power by 8-10 per cent to tackle tough ground or heavy lifting duties. **Operator control, electronic response.**

DURABILITY AND BUILD QUALITY

Turntable bearing hub extends through top plate for increased strength, while swivel guard protects internal upperstructure components from damage. Full track guards protect track components and strut-type chain links reduce twisting and point loading. **Durable undercarriage, extended component life.**

FASTER TRAVEL

Two speed travel with auto downshift offers traction on tough ground. Track rollers equipped with synthetic oil to reduce heat build up, increasing long term reliability. Variable track width allows rapid transportation between sites, with optional auto-demountable counterweight increasing machine versatility.

Smooth shifting, maximum tractive effort.

LONG LIFE COMPONENTS

EMS chrome plated pins and brass bushes for maximum durability. Greasing on all boom and arm pins (except bucket) at six month/1000 hour intervals.

Reduced maintenance, peace of mind.

EXCEPTIONAL SERVICE ACCESS

Wide opening side panels and walkways to both sides of the machine enable service access to all engine and hydraulic components. A reversible hydraulic fan draws dust and debris from the cooling pack at engine start-up to reduce build-up in the radiators. On-board diagnostics constantly monitor machine status and green plug drain system eliminates ground pollution during regular maintenance.

Ease of service, reduced downtime.

OPERATOR COMFORT

Spacious cab offers excellent all round visibility and high levels of comfort. Isolation mountings reduce vibration and noise in the cab, while climate control provides the perfect working environment for the operator.

Total comfort, total productivity.



STRENGTH TO PERFORM

Heavy duty boom and dipper construction with internal baffles provides strength and durability to resist torsional loads. Choice of four boom/arm configurations, including mass excavation combination for increased productivity in high capacity applications.

The power to dig, built to last.

ENGINE



The Case CX700 is equipped with a proven Isuzu AH-6WG1X diesel engine, providing 462hp (345kW) of power at an unstressed 1800rpm.

With high pressure common rail fuel injection, this electronically-controlled motor easily meets the requirements of the EU directive 97/68/EC Tier 3A on engine emissions.

Electronic engine control, in combination with the Case hydraulic Intelligent Computer Command Control System (ICCCS) 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 fuel, reducing consumption and 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 are among the toughest on the market, yet they retain the power and speed to perform. Using an Intelligent Computer Command Control System (ICCCS), the CX700 provides the optimum balance of speed, power and fuel efficiency whatever the job.

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 CX700 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 cuttings operating costs.

OPERATING MODES



The CX700 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

The CX700's cab offers high levels of comfort, low levels of 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



Case has a long tradition of building strong, durable excavators and the CX700 is no exception. 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 standard two speed travel motors, with a top speed of 4.1km/h, making it easy to reposition on site.

The motors will downshift automatically when the going gets tough, and compact high torque final drives ensure traction on the steepest grades and in the deepest mud.

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 CX700 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/ 1,000 hours of operation, cutting downtime and ensuring that the machine keeps working longer.

EMS chrome plated pins with brass bushing



ATTACHMENTS/BUCKETS

CX700 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 1.7m³- 4.55 m³, there is a configuration to meet the requirements of every customer's job site.





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
 Direct injection _____ electronically controlled
 No. of cylinders _____ 6
 Bore - Stroke _____ 147 x 154 mm
 Cubic capacity _____ 15700 cm³
 EEC 80/1269 horsepower _____ 345 kW - 462 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 conditions of efficiency and economy. The system consists of two axial piston, variable flow pumps.
 Max output _____ 2 x 440 l/min
 Max safety valve pressure _____
 Attachment/**Power Boost** _____ 320/**350** bar
 Upperstructure swing _____ 285 bar
 Travel _____ 350 bar
 Oil filtration (Ultra Clean) _____ 1 micron

SWING

Max upperstructure swing speed _____ 6.5 rpm
 Swing torque _____ 24800 daN

TRAVEL

The travel circuit is equipped with two axial piston, variable flow motors.
 Planetary reduction gear, automatic multi-disc brake.
 Max travel speed _____ 4.1 kph
 Low travel speed _____ 3.0 kph

Speed change is controlled from the instrument panel.

Automatic downshift

Gradeability _____ 70% (35°)

Tractive force _____ 46900 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

Upper rollers _____ 3

Lower rollers _____ 8

Number of track pads _____ 47

Type of shoes _____ Double grouser

Track pad width _____ 650 mm

750 mm

900 mm

Full length track guard _____ yes

CIRCUIT AND COMPONENT CAPACITIES

Fuel tank _____ 900 l

Hydraulic reservoir _____ 310 l

Hydraulic system _____ 650 l

Travel reduction gear (per side) _____ 30 l

Swing reduction gear _____ 27 l

Engine (including filter change) _____ 52 l

Engine cooling circuit _____ 112 l

TRANSPORT

The variable track width facilitates transportation by reducing the width to 3.39 m (with 650 mm pads). The CX700 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*

HEAVY DUTY

SAE capacity	l	1700	2125	2780	3225	3665	3885	4105	4550
Width	mm	1100	1300	1600	1800	2000	2100	2200	2400
Weight	kg	2710	3002	3372	3649	3886	4016	4134	4507

HEAVY DUTY WITH TOPLOK

SAE capacity	l	1700	2780	3665	3885	4105
Width	mm	1100	1600	2000	2100	2200
Weight	kg	2779	3476	4024	4154	4272

EXTRA HEAVY DUTY WITH TOPLOK

SAE capacity	l	1740	2185	2870	3330	3790	4250
Width	mm	1100	1300	1600	1800	2000	2200
Weight	kg	3150	3457	3911	4214	4576	4884

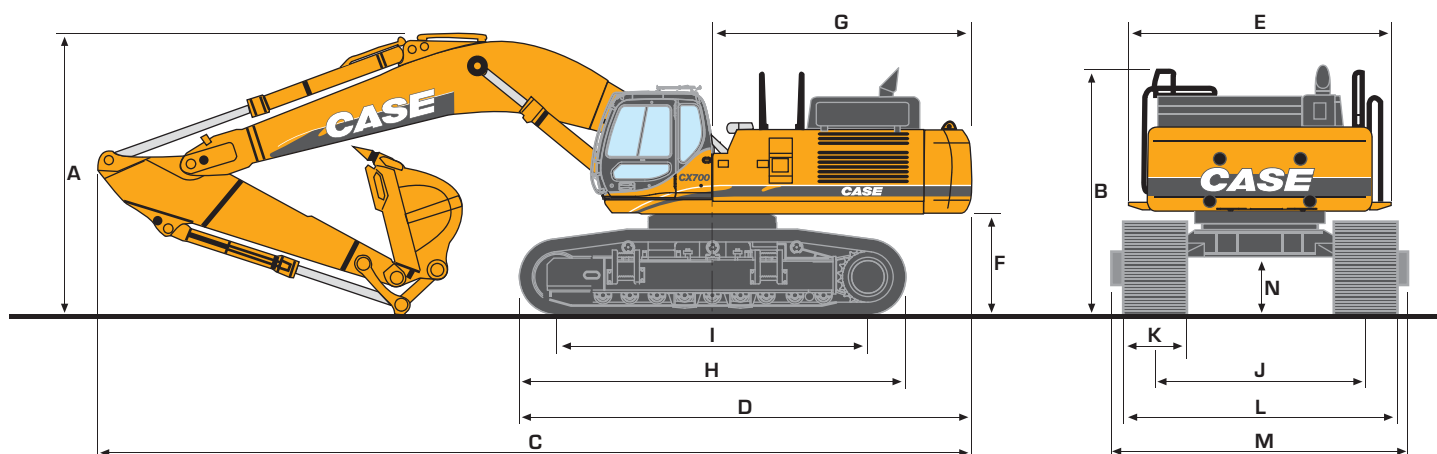
QUARRY WITH TOPLOK

SAE capacity	l	3300
Width	mm	1800
Weight	kg	4299

* For other bucket sizes, please contact your CASE dealer

GENERAL DIMENSIONS

WITH 7.70 m STANDARD BOOM



DIPPER LENGTH		3.00 m	3.55 m	4.11 m	5.00 m	
A	Overall height (with attachment)	m	4.37	4.30	4.47	5.16
B	Cab height	m	3.79	3.79	3.79	3.79
C	Overall length (with attachment)	m	13.25	13.29	13.30	13.17
D	Overall length (w/o attachment)	m	6.91	6.91	6.91	6.91
E	Width of upperstructure (with cat walks)	m	3.99	3.99	3.99	3.99
F	Upperstructure ground clearance	m	1.51	1.51	1.51	1.51
G	Swing (rear end) radius	m	3.97	3.97	3.97	3.97
H	Track overall length	m	5.88	5.88	5.88	5.88
I	Centre/centre (idler to sprocket)	m	4.70	4.70	4.70	4.70
J	Track gauge (work)	m	3.25	3.25	3.25	3.25
	(travel)	m	2.74	2.74	2.74	2.74
K	Track shoes width (std)	mm	650	650	650	650
L	Track overall width - Shoes 650 mm (work)	m	3.90	3.90	3.90	3.90
	- Shoes 650 mm (travel)	m	3.39	3.39	3.39	3.39
	- Shoes 750 mm (work)	m	4.00	4.00	4.00	4.00
	- Shoes 750 mm (travel)	m	3.49	3.49	3.49	3.49
	- Shoes 900 mm (work)	m	4.15	4.15	4.15	4.15
	- Shoes 900 mm (travel)	m	3.64	3.64	3.64	3.64
M	Undercarriage overall width (extended/650 mm/steps installed)	m	4140	4140	4140	4140
N	Ground clearance	m	0.83	0.83	0.83	0.83

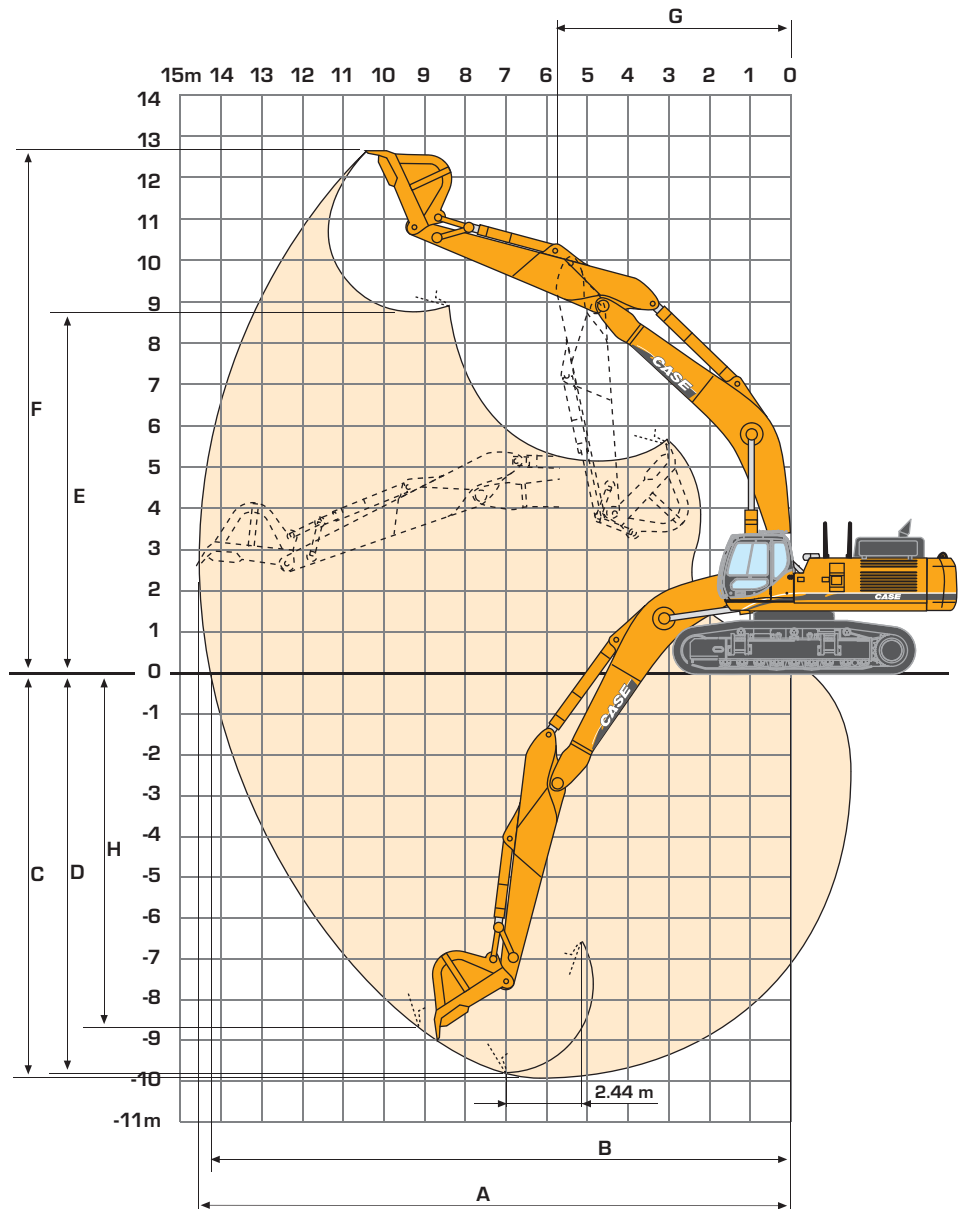
WEIGHT AND GROUND PRESSURE

	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 3.00 m	68835	1.02	69455	0.89	70255	0.75
Dipper 3.55 m	68900	1.02	69520	0.89	70320	0.75
Dipper 4.10 m	69505	1.03	70215	0.90	70925	0.76
Dipper 5.00 m	69540	1.03	70160	0.90	70960	0.76

*Bucket weight: 2866 kg

PERFORMANCE DATA

WITH 7.70 m STANDARD BOOM



DIPPER LENGTH

		3.00 m	3.55 m	4.11 m	5.00 m	
A	Maximum digging reach	m	12.90	13.20	13.70	14.60
B	Maximum digging reach at ground level	m	12.60	12.90	13.40	14.30
C	Maximum digging depth	m	7.87	8.40	8.97	9.85
D	Digging depth - 2.44 m level bottom	m	7.72	8.27	8.85	9.75
E	Max dump height	m	8.33	8.02	8.16	8.71
F	Overall reach height	m	12.40	11.92	12.04	12.70
G	Minimum swing radius - attachment	m	5.86	5.81	5.68	5.70
H	Vertical straight wall dig depth	m	6.85	6.87	7.36	8.63
	Digging force (w/o Power Boost)	daN	24400	22400	20200	17500
	Breakout force (w/o Power Boost)	daN	29000	29000	29000	29000
	Digging force (with Power Boost)	daN	26700	24500	22100	19200
	Breakout force (with Power Boost)	daN	31700	31700	31700	31700

LIFTING CAPACITY

WITH 7.70 m STANDARD BOOM

Values are expressed in kilos

Front 360°	REACH							
	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m	10.5 m	12.0 m	At max reach m

With 3.00 m dipper and bucket

9.0 m																			
7.5 m								12490*	11440								9920*	9860	9.68
6.0 m							14710*	14710*	13040*	11060							8940*	8200	10.46
4.5 m																			
3.0 m																			
1.5 m																			
0 m																			
-1.5 m																			
-3.0 m	20740*	20740*	28830*	28600	22670*	17310	17920*	12110	14090*	9170							12880*	8520	9.47
-4.5 m	29490*	29490*	24110*	24110*	19310*	17760	15100*	12460											
-6.0 m																			
-7.5 m																			

With 3.55 m dipper and bucket

9.0 m																			
7.5 m																			
6.0 m																			
4.5 m																			
3.0 m																			
1.5 m																			
0 m																			
-1.5 m																			
-3.0 m	14330*	14330*	24210*	24210*	24860*	17080	19170	11960	14270	8960									
-4.5 m	21460*	21460*	30430*	28270	23360*	17120	18320*	11930	14270	8960									
-6.0 m	29880*	29880*	26170*	26170*	20510*	17450	16070*	12170											
-7.5 m																			

With 4.11 m dipper and bucket

9.0 m																			
7.5 m																			
6.0 m																			
4.5 m																			
3.0 m																			
1.5 m																			
0 m																			
-1.5 m	8220*	8220*	19320*	19320*	25040*	17590	19130*	12420	14620	9280	11360	7160							
-3.0 m	13610*	13610*	23410*	23410*	25150*	17150	19250	12040	14320	9010	11200	7000							
-4.5 m	19460*	19460*	29880*	28060	24110*	17070	18800*	11910	14240	8930									
-6.0 m	26430*	26430*	28360*	28360*	21810*	17290	17090*	12050	13300*	9080									
-7.5 m	29560*	29560*	22710*	22710*	17730*	17730*	13540*	12500											

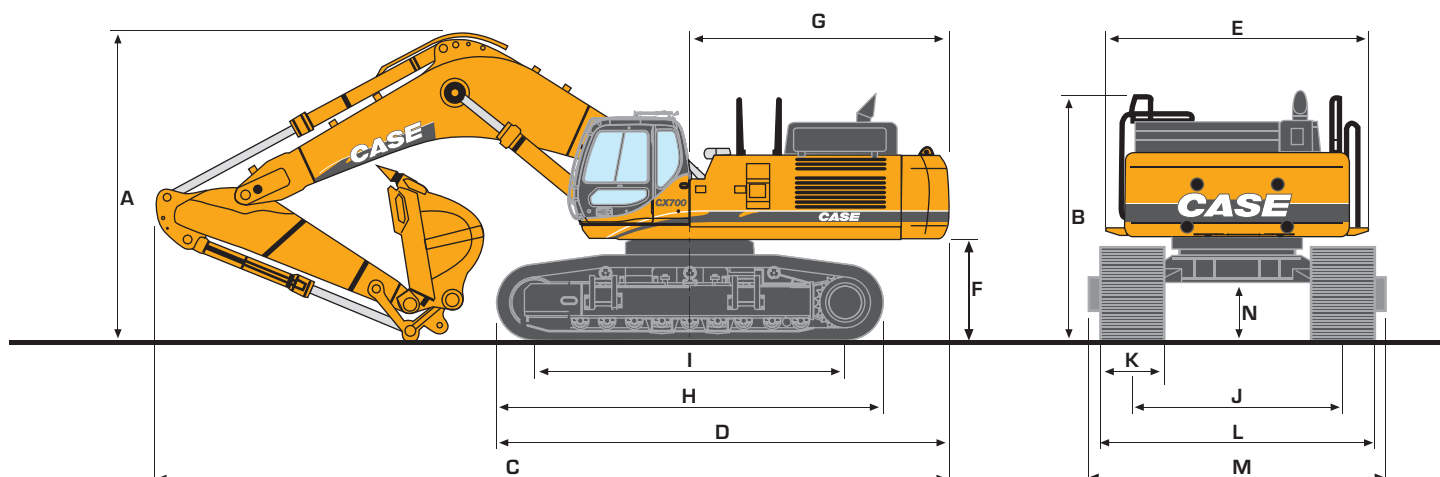
With 5.00 m dipper and bucket

9.0 m																			
7.5 m																			
6.0 m																			
4.5 m																			
3.0 m																			
1.5 m																			
0 m																			
-1.5 m	11450*	11450*	21290*	21290*	25090*	17250	19200*	12100	14340	9020	11150	6960							
-3.0 m	15930*	15930*	25690*	25690*	24780*	16960	19020	11830	14130	8820	11040	6850							
-4.5 m	21390*	21390*	31080*	28010	23280*	16990	18120*	11810	14130	8820									
-6.0 m	28480*	28480*	26650*	26650*	20330*	17320	15790*	12050	11990*	9080									
-7.5 m	26080*	26080*	19720*	19720*	15120*	15120*													

- 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 6.58 m MASS EXCAVATION BOOM - 3.00 m DIPPER



A Overall height (with attachment)	m	4.76
B Cab height	m	3.79
C Overall length (with attachment)	m	12.11
D Overall length (w/o attachment)	m	6.91
E Width of upperstructure (with cat walks)	m	3.99
F Upperstructure ground clearance	m	1.51
G Swing (rear end) radius	m	3.97
H Track overall length	m	5.88
I Centre/centre (idler to sprocket)	m	4.70
J Track gauge (work)	m	3.25
(travel)	m	2.74
K Track shoes width (std)	mm	650
L Track overall width - Shoes 650 mm (work)	m	3.90
- Shoes 650 mm (travel)	m	3.39
- Shoes 750 mm (work)	m	4.00
- Shoes 750 mm (travel)	m	3.49
M Undercarriage overall width (extended/650 mm/steps installed)	m	4.14
N Ground clearance		0.83

WEIGHT AND GROUND PRESSURE

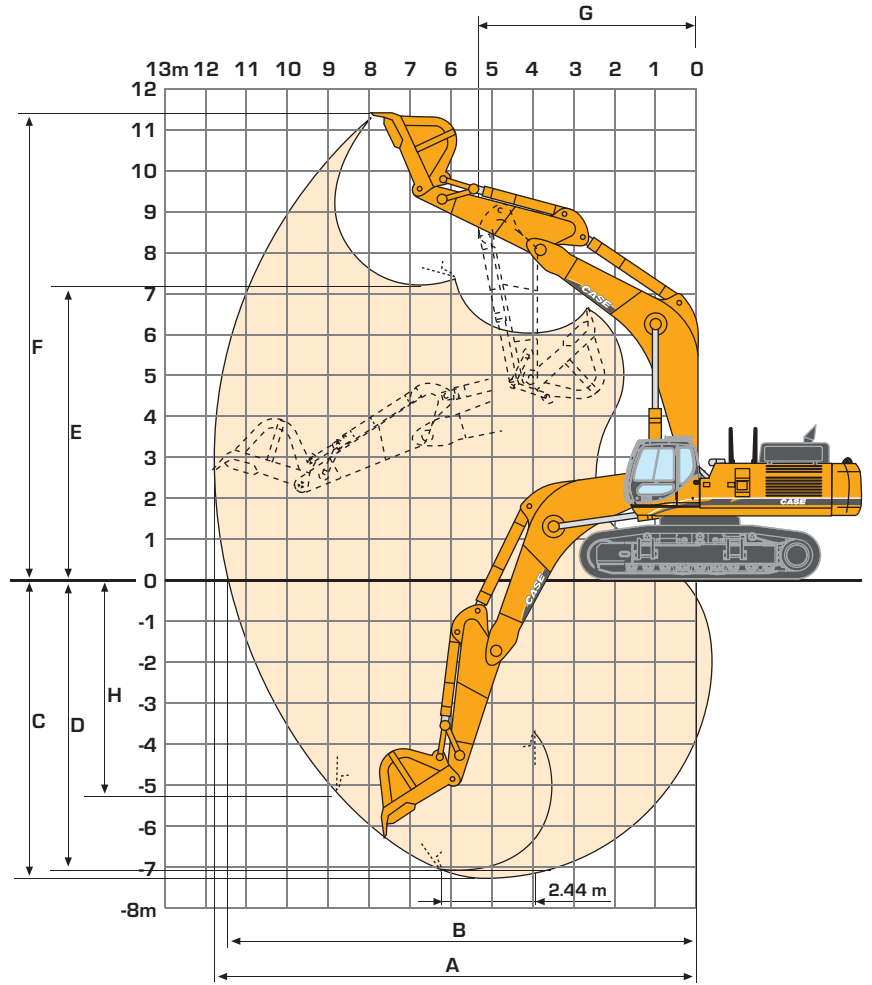
	650 mm		750 mm	
Whit operator, full fuell tank, lubricant, coolant, bucket*	WEIGHT (kg)	GROUND PRESSURE (bar)	WEIGHT (kg)	GROUND PRESSURE (bar)
Dipper 3.00 m	68835	1.02	69455	0.89

*Bucket weight: 3309 kg



PERFORMANCE DATA

WITH 6.58 m MASS EXCAVATION BOOM - 3.00 m DIPPER



A	Maximum digging reach	m	11.75
B	Maximum digging reach at ground level	m	11.46
C	Maximum digging depth	m	7.18
D	Digging depth - 2.44 m level bottom	m	7.04
E	Max dump height	m	7.04
F	Overall reach height	m	11.13
G	Minimum swing radius - attachment	m	5.21
H	Vertical straight wall dig depth	m	5.10
	Digging force (w/o Power Boost)	daN	23700
	Breakout force (w/o Power Boost)	daN	33400
	Digging force (with Power Boost)	daN	25900
	Breakout force (with Power Boost)	daN	36500

LIFTING CAPACITY

With 6.58 m boom, 3.00 m dipper and bucket

Values are expressed in kilos

Front 360°	REACH															
	3.0 m	4.5 m	6.0 m	7.5 m	9.0 m	10.5 m	12.0 m	At max reach	m							
9.0 m																
7.5 m					12490*	11440				9920*	9860	9.68				
6.0 m				14710*	14710*	13040*	11060			8940*	8200	10.46				
4.5 m		29140*	29140*	20440*	20440*	16280*	14420	13870*	10550	12150*	7900	9240*	7400	10.84		
3.0 m				23210*	19060	17850*	13490	14760*	10010	11850	7610	9820*	6960	11.01		
1.5 m				24930*	17900	19020*	12740	14900	9540	11570	7350	10730*	6810	10.97		
0 m				13790*	13790*	25340*	17320	19490	12260	14550	9220	11390	7190	11040	6960	10.71
-1.5 m				21710*	21710*	24570*	17160	19230*	12050	14400	9080			11840	7470	10.22
-3.0 m	20740*	20740*	28830*	28600	22670*	17310	17920*	12110	14090*	9170				12880*	8520	9.47
-4.5 m	29490*	29490*	24110*	24110*	19310*	17760	15100*	12460						12560*	10590	8.38
-6.0 m			16810*	16810*	13370*	13370*								11100*	11100*	6.79
-7.5 m																

CX7000

STANDARD EQUIPMENT & OPTIONS

STANDARD EQUIPMENT

Hydraulic control

- 4 working modes (3 manual + 1 auto)
- 2 travel speeds
- 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 to Tier 3A European standards
- Electrical control on injection pump
- Automatic / manual engine return to idle
- Fuel level check
- Emergency stop
- Automatic engine pre-heating
- Auto-stop electric refuel pump

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 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) chrome pins with brush bushing throughout entire attachment except bucket
- Track guide (over full chassis length)
- Upper and lower undercovers
- LC undercarriage
- Sealed and lubricated track

OPTIONS

- Auxiliary hydraulic circuit
- Possible options and combinations:
 - Hammer circuit with pedal control
- Safety valve
- Auto-demountable counterweight (hydraulic)
- 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