## **308D CR** Mini Hydraulic Excavator with Fixed Boom

## CATERPILLAR®



Engine Power	
Net power	41.5 kW/56.5 hp
Gross power	43.0 kW/58.5 hp
Weight	
Operating weight	7850 kg

#### Features 308D CR with Fixed Boom

#### **Controllability**

Perfectly balanced front linkage geometry and hydraulics deliver a high level of control for landscaping and fine grading.

#### Performance

High digging forces and load sensing hydraulics provide high levels of productivity.

#### **Compact Radius**

The compact radius and fixed boom design gives greater versatility and reduces the risk of damage when working in a tight space.

#### **Comfort and Ease of Operation**

The large spacious cab includes air conditioning as standard and an easy clean floor with joystick mounted auxiliary swing functions.

#### **Work Tools**

*Wide selection of Cat Work Tools increase job site versatility.* 

#### **Serviceability**

Longer service intervals and easier maintenance result in reduced downtime and lower owning and operating costs.



#### **Contents**

Compact Radius3
Operator Station
Performance and Controllability4
Engine
Work Tools
Undercarriage6
Serviceability7
Customer Support7
Specifications8
Dimensions9
Lift Capacity Charts10
Standard and Optional Equipment11

The Caterpillar<sup>®</sup> 308D CR FB machine is engineered to offer the versatility in a durable Compact Radius design. Attention to operator comfort and ease of maintenance ensures both productivity and lower operating costs.



# **Compact Radius**

# Greater machine versatility in tight spaces.

The Compact Radius design of the 308D CR FB gives the machine greater versatility and capability to work within confined areas. The radius of the upper body stays close to the width of the undercarriage so the operator can concentrate on the work being done without having to worry about the back of the machine.

The cab door is shaped to follow the line of the cab. It slides open taking up less space than a hinged door which allows the operator to get in and out of the machine easily even when working in tight areas. This design maintains the machine's compact dimensions reducing the risk of damage.

Flexibility for different worksite applications with a reduced risk of damage and less stress for the operator add up to higher rates of productivity and lower operating costs.

## **Operator Station**

A large, spacious cab provides operator comfort and improved visibility. The clear flat floor space gives the operator plenty of leg room. While an intuitive cab layout makes for ease of operation and reduces operator fatigue. The 308D CR FB features:

- Air conditioning as standard.
- Pressurised cab reduces the amount of dust that enters the cab.
- A reclining suspension seat with adjustable wrist rests.
- Low effort joystick controls are designed to match the operator's natural wrist and arm positions.
- Overhead skylight, with integrated sun shade improves visibility and can be opened to create air flow.
- Front windshield opens easily and stores in roof space above the operator with an automatic latching mechanism.
- All hydraulic functions on the 308D are fully pilot operated lowering owning and operating costs and resulting in less down time.
- Flat clear floor is uncluttered and easy to sweep out.

#### **Monitor Display**

The LCD monitor is located to give a clear view of the machine's monitoring system, ensuring fuel level, water temperature and warning lights are easy to read and understand.



# Performance and Controllability

# Powerful digging combined with smooth responsive control.

High digging forces provide power through even the most compacted ground, coupled with direct, smooth control through responsive hydraulics ensuring that the Cat 308D CR FB delivers the high productivity that customers demand. Load sensing hydraulics optimise the flow of oil for smooth powerful performance and increased fuel economy.

#### Controllability

The new Cat 308D CR FB front linkage has been perfectly balanced with the hydraulics to deliver the high level of control required for fine grading and landscaping applications.

- Automatic two speed function improves jobsite manoeuvrability by balancing high speed travel requirements and control.
- Joystick mounted auxiliary control enhances machine controllability. The intuitive controls give fine modulation.
- The levers and dozer function ensure that "as new" levels of controllability are maintained throughout the machine life.
- Auxiliary lines including quick connectors are fitted as standard, meaning the Cat 308D CR FB comes ready to work.
- Dozer blade float function enables easy ground levelling for landscaping and finishing applications as well as more efficient site clean-up.
- Optional boom lowering check valve includes integral overload warning device.

#### **Lift Capacity**

The new Caterpillar 308D CR FB has high level lift capacity matched with outstanding stability all in a Compact Radius package to provide the on site versatility required to match the increasingly diverse needs of the customer.

#### Stick

A choice of standard or long stick enables the customer to match the machine choice to their requirements.





## **Engine** Clean, quiet operation with superior power.

The new 308D CR Series Mini Hydraulic Excavator has a turbocharged engine providing increased power, fuel efficiency, altitude capability and overall performance while meeting EU Stage IIIA regulations.

#### **Economy Mode**

This standard feature allows the balance of performance and fuel economy while maintaining breakout forces and lift capacity. Operating in economy mode can help reduce your overall fuel consumption.

#### **Electronic Control Module (ECM)**

The ECM responds quickly to operating variables to maximize engine efficiency. Fully integrated with sensors in the engine's fuel, air, coolant and exhaust systems, the ECM stores and relays information on conditions such as rpm, fuel consumption and diagnostics.

# **Work Tools**

### Cat Work Tools are matched to meet your application needs.











A wide range of work tools is specifically designed to get the best out of the machine and deliver excellent value through high productivity and long life. Cat Work Tools include:

- Digging buckets
- · Heavy duty buckets
- Heavy duty rock buckets
- Fixed ditch cleaning buckets
- Tilting ditch cleaning buckets
- Hydraulic hammers
- Augers
- Shears
- Compactors

To maximize performance, Caterpillar mechanical and hydraulic Quick Couplers are compatible with all standard work tools, enabling the operator to simply release one work tool and pick up another, maximizing productivity.

One-way flow (hammer) and two-way flow (auger) auxiliary lines with quick connectors are fitted as standard. This feature allows the machine to adapt to a wide variety of applications without re-configuring the auxiliary lines. Here versatility is further enhanced with the option of a second auxiliary supply (for a rotating grapple).

# **Undercarriage**

### **Excellent stability.**

Depending on the customers application, the Cat 308D CR FB has four different track options to choose from, allowing the correct machine configuration to suit the job.

#### **Rubber Belt**

The standard track offering is 450 mm width.

#### **Steel Track**

A triple grouser track is available in 2 width options: 450 mm and 600 mm.

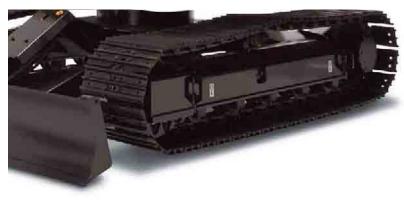
#### **Segmented Rubber Track**

This option of track prevents damage to concrete and other road surfaces ideal in urban applications.

#### **Rubber Pads**

The 450 mm wide shoe has four holes to attach the rubber pads to the steel track shoes. This option prevents damage to paved road surfaces and minimises noise and vibration during travel.





#### **Blade Widths**

The dozer blade is an important and useful tool for the Hydraulic Mini Excavator used for backfilling trenches, levelling, landscaping and site clean up. There are two blade width options available to accommodate the differences in track widths. The blade comes standard with a replaceable weld-on dozer cutting edge constructed of hardened steel for longer life.

#### **Tie Down Points**

Large oval tie down points are located on the blade and undercarriage for easy and safe machine tie down for transportation.



# Serviceability

# Easy access and minimal maintenance requirements keep your machine on the job.



Robust, reliable and easily serviced are the key attributes of Caterpillar Mini Hydraulic Excavators. Full steel body work panels provide durable protection against damage. All daily service points are easily accessed through the rear hood and side cover and a 500 hour engine oil change interval lowers operating costs. The Cat S•O•S. points assist easy oil sampling for preventative maintenance checks.

#### **Cat Product Link**

The optional Product Link system simplifies equipment fleet tracking. Using satellite or cellular technology, the system automatically reports information such as location, machine hours, active and logged service codes and security alarms.

#### **Cat Machine Security System**

An optional Machine Security System (MSS) that utilizes a programmable key system that deters theft, vandalism and unauthorized usage. MSS uses electronically coded keys selected by the customer to limit usage by individuals or time parameters.

## **Customer Support**

# Unmatched support makes the difference

## Your Cat dealer is ready to assist you with your purchase decision and everything after.

- Make comparisons of machines, with estimates of component life, preventative maintenance and cost of production.
- Financing packages are flexible to meet your needs.
- Your Cat dealer can evaluate the cost to repair, rebuild and replace your machine, so you can make the right choice.
- A worldwide computer network enables the dealer parts counter to locate nearly all parts.
- For more information on Cat products, dealer services and industry solutions, visit us at www.cat.com.



#### Engine

Model	Mitsubishi 4M40-TL
Rated Net Power	41.5 kW/56.5 hp
Gross Power	43.0 kW/58.5 hp
Rated Speed	2000 rpm
Dimensions	
Bore	95 mm
Stroke	100 mm
Displacement	2835 cm <sup>3</sup>

- All engine horsepower (hp) are metric including front page.
- Net power rating ISO 9249 and 80/1269/EEC
- Meets EU stage IIIA emission regulations

#### Weights

Operating weight with cab 7850 kg

- Weight with rubber tracks, bucket, operator (80 kg), full fuel and auxiliary lines.
- Weight varies depending on machine configuration

#### **Swing System**

Machine Swing Speed	10 rpm
Bucket Rotation	179°
• Automatic swing brake, spring	applied,
hydraulic release	

Centralized lubrication

#### **Travel System**

Travel speed	
high	5.0 km/h
low	3.1 km/h
Tractive effort	64 kN
Gradeability	35°
Ground pressure	0.32 bar

- Each track is driven by one independent 2-speed motor
- Drive modules are integrated into the roller frame for total protection.
- Straight line travel when tracking and operating the front linkage simultaneously

#### **Service Refill Capacities**

Fuel tank Cooling system Engine	liter
	125.0
Engine	15.7
2	12.5
Hydraulic tank	83.0
Hydraulic system	94.0

#### **Hydraulic System**

Operating pressures	280 bar
Travel	320 bar
Swing	240 bar
Auxiliary circuit	
Primary	128 l/min
Secondary	64 l/min
Digging forces	
Stick (standard)	39 kN
Stick (long)	35 kN
Digging forces – bucket	60 kN
Hydraulic pump	
Piston	150 l/min
Pilot	19 l/min
Variable displacement	77 l/min

#### **Sound Levels**

#### Operator Sound

• The operator sound pressure level measured according to the procedures specified in ISO 6396:1992 is 79 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.

Exterior Sound\*

- The European Union 2000/14/EC labeled exterior sound power level is 98 dB(A) for the machines certified to that requirement.
- \* The exterior sound power level for the high ambient temperature cooling package equipped non-European Union configured machine when measured according to the procedures specified in ISO 6395:1988 is 100 dB(A).

#### **Electrical System**

• 35 A alternator

De.

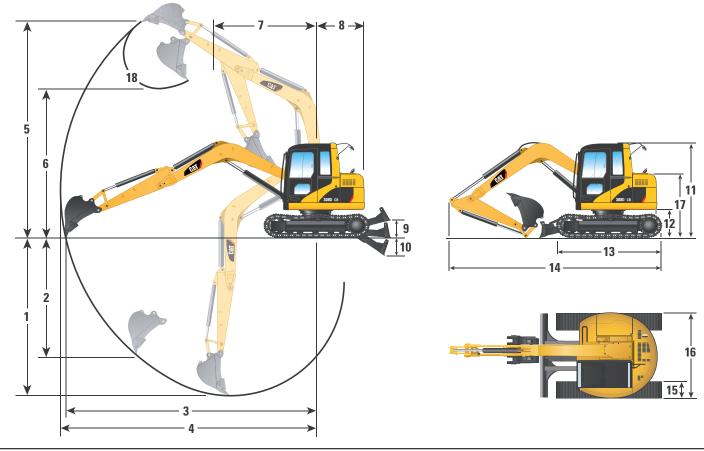
- 24 V (12 V x 2), 750 CCA at 18°C, maintenance free battery
- · Sealed electrical connectors

Blade	
Width	2300 mm
Height	450 mm
Dig depth	350 mm
Lift height	390 mm

- Blade float function provides easier
  operation
- Replaceable, hardened, wear resistant cutting edge

#### Dimensions

All dimensions are approximate.



	Standard Stick	Long Stick
	mm	mm
11	2590	2590
12	735	735
13	2910	2910
14	5810	5830
15	450	450
16	2320	2320
17	1760	1760
18	179°	179°
Boom Height Travel	2630	2740
Tail Overhang	130	130

	Standard Stick	Long Stick
	mm	mm
1	4090	4630
2	3650	4160
3	6190	6710
4	6340	6840
5	7340	7760
6	5310	5730
7	1670	2230
8	1290	1290
9	380	380
10	360	360

## **308D CR Specifications**

#### Lift Capacities with 3700 mm Fixed Boom

All weights are in kg. Calculations are made without bucket, but with CW30 Quick Coupler. Lift capacities described in the tables below are calculated with 450 mm shoes. 600 mm shoe configurations are not included as they do not impact significantly the following data.

Blade Up		1.0 m		2.0 m		3.0	) m	4.(	) m	5.0	) m	6.0 m				]
<b>Standard stick</b> – 1670 mm	T (K	<b>F</b>		<b>F</b>	P		F	Į,	F		(P	D.	(P			m
<b>Bucket</b> $- 0.31 \text{ m}^3$		10	Lin	10		10		10	Lin <sup>e</sup>	ป_	Line .	1	Cir <sup>a</sup>	*1050	*1050	3.76
<b>Shoes</b> – 450 mm	6.0 m 5.0 m					*2000	*2000	*1700	*1700					*900	*900	4.90
	4.0 m					*2250	*2250	*2050	1900					*850	*850	4.90 5.56
	3.0 m			*3700	*3700	*2650	*2650	2030	1850	1450	1300			*850	*850	5.94
	2.0 m			3700	3700	*3250	2800	2050	1800	1450	1250			*900	*900	6.09
	1.0 m					3150	2650	2000	1700	1400	1200			*950	*900	6.03
	0 m					3050	2550	1900	1650	1350	1200			*1050	*950	5.77
	-1.0 m	*2700	*2700	*4300	*4300	3000	2550	1900	1650	1000	1200			*1200	*1100	5.27
	-2.0 m	*4500	*4500	*3800	*3800	*2850	2550	1900	1650					*1250	*1250	4.43
	-3.0 m	1000	1000	*2250	*2250	*1600	*1600	1000	1000					*1350	*1350	3.26
Diada IIn																
Blade Up			) m	2.0	) m		) m	4.0	) m	5.0	) m		) m			4
Long stick – 2210 mm	T	F.	P		P	P		F.	F	F.	P	R,	P			m
<b>Bucket</b> $-0.23 \text{ m}^3$	6.0 m							*1250	*1250	U				*1050	*1050	4.61
<b>Shoes</b> – 450 mm	5.0 m							*1650	*1650					*950	*950	5.55
	4.0 m					*1850	*1850	*1750	*1750	1500	1350			*900	*900	6.12
	3.0 m					*2250	*2250	*1950	1900	1500	1300			*900	*850	6.46
	2.0 m					*2850	*2850	2100	1800	1450	1250			900	800	6.59
	1.0 m					3200	2700	2000	1700	1400	1200			900	800	6.55
	0 m					3050	2550	1900	1650	1350	1150			950	800	6.31
	-1.0 m			*3700	*3700	2950	2500	1850	1600	1300	1150			1050	900	5.87
	-2.0 m	*3500	*3500	*4500	*4500	2950	2500	1850	1600					*1300	1100	5.14
	-3.0 m	*4800	*4800	*3250	*3250	*2350	*2350							*900	*900	3.96
Blade Down		10														
Standard stick – 1670 mm	्रिंग		) m	2.0			) m	_	) m	5.0		-	) m			
<b>Bucket</b> $-0.23 \text{ m}^3$	Ľ	U	P	R.	P	Ø	C P	U	C P	Ø	F	Ø	F		F	m
<b>Shoes</b> – 450 mm	6.0 m							*1250	*1250					*1050	*1050	4.61
<b>Shoes</b> – 450 mm	5.0 m							*1650	*1650					*950	*950	5.55
	4.0 m					*1850	*1850	*1750	*1750	*1650	1450			*900	*900	6.12
	3.0 m					*2250	*2250	*1950	*1950	*1750	1400			*900	*900	6.46
	2.0 m					*2850	*2850	*2250	2000	*1900	1400			*950	850	6.59
	1.0 m					3400	3000	*2500	1900	*2000	1350			*100	850	6.55
	0 m					3650	2850	*2650	1800	*2050	1300			*1100	900	6.31
	-1.0 m			*3700	*3700	3550	2800	2600	1750	*2000	1250			*1250	1000	5.87
	-2.0 m	*3500	*3500	*4500	*4500	3150	2800	2350	1750					*1300	1250	5.14
	—3.0 m	*4800	*4800	*3250	*3250	*2350	*2350							*900	*900	3.96
Blade Down		1.0	) m	2.0	2.0 m	3.	) m	4.0	4.0 m	5.0	.0 m	6.0	6.0 m			]
Long stick – 2210 mm	Ĩ			Ū,		CI,										
<b>Bucket</b> $- 0.23 \text{ m}^3$		ľ		6	P	- <b>E</b>	F	ľ	F	Ø	F		F			m
<b>Shoes</b> – 600 mm	6.0 m							*1250	*1250					*1050	*1050	4.61
	5.0 m							*1650	*1650					*950	*950	5.55
	4.0 m					*1850	*1850	*1750	*1750	*1650	1550			*900	*900	6.12
	3.0 m					*2250	*2250	*1950	*1950	*1750	1500			*900	*900	6.46
	2.0 m					*2850	*2850	*2250	2100	*1900	1450			*950	950	6.56
	1.0 m					*3400	3200	*2500	2050	*2000	1400			*1000	950	6.55
	0 m			XOTOS	*0705	*3650	3050	*2650	1950	*2050	1400			*1100	950	6.31
	-1.0 m	*0=00	*0705	*3700	*3700	*3550	3000	*2600	1900	*2000	1350			*1250	1100	5.87
	-2.0 m	*3500	*3500	*4500	*4500	*3150	3000	*2350	1900					*1300	*1300	5.14
	-3.0 m	*4800	*4800	*3250	*3250	*2350	*2350							*900	*900	3.96
Load Point Height	Load I	Radius O	ver Front			Load R	adius Ov	er Side			Lo	ad at M	aximum	Reach		

Load Point Height
 Limited by hydraulic rather than tipping load.

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lifting capacities.

#### Standard equipment may vary. Consult your Caterpillar dealer for details.

Alternator - 35 A Automatic low idle function Auxiliary circuit valve, controls and 1 way hammer lines to stick 2 way (auger) auxiliary lines to the stick Auxiliary line quick couplers Brake, automatic swing holding Boom, fixed/one-piece Cab, fully glazed with FOPS per ISO 10262 (level I), TOPS per ISO 12117 air conditioner with heater/defroster AM/FM Radio with CD player interior light windshield wiper/washer Cab mounted work light Coat hook Cup holder Dial type accelerator Dozer blade - 2300 mm with float function and replaceable weld-on cutting edge External storage area Floor mat Cooling package, high ambient Guards Falling object guard system Front windshield Travel pedals

Gauges and indicators for fuel level, engine coolant temperature, hour meter, engine pressure, air cleaner, alternator and glow plugs, service interval Horn Hydraulic oil cooler Joystick mounted auxiliary control Low maintenance linkage pin joints Maintenance-free battery (2) Mirrors, cab left and rear Opening window in cab roof with one touch handle Power point, 12 V Rubber track - 450 mm width Standard stick - 1670 mm Suspension seat, with retractable seat belt (50 mm wide) Travel pedals Two speed travel, automatic with removable levers Windows - main windshield wiper and washer - right and rear windows tempered glass - sliding door window, tempered glass

windshield, two-piece:
 upper, retractable laminated glass
 lower, tempered glass

### **308D CR Optional Equipment**

Optional equipment may vary. Consult your Caterpillar dealer for details.

Alarm, travel Long stick - 2210 mm Blade: - 2400 mm \* for 600 mm track width options MSS ready Product Link ready Boom mounted light Seat belt, 75 mm wide Buckets Check valve, boom lowering Tracks, Steel 450 mm triple grouser Check Valve, stick lowering Tracks, Steel 650 mm triple grouser Coolant, extended life Tracks, 450 mm segmented rubber Additional counterweight (1150 kg) Tracks, 450 mm with rubber pad Ecology drain valve for hydraulic tank Seat options: Ecology drain valve for engine oil - Seat without suspension, head rest Electric refuelling pump - Vinyl seat without suspension, head rest Front screen guard for cab - high back seat with suspension, head rest Hydraulic arrangements, auxiliary: Tool kit - single function capability Travel alarm - double function capability Work tools

- combined single and double function capability

### **308D CR Mini Hydraulic Excavator with Fixed Boom**

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Caterpillar dealer for available options.

© 2008 Caterpillar -- All rights reserved

CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

HEHH3717 (02-2008) hr

