



Doosan Infracore  
Construction Equipment

# DX140LCR

Engine Power : SAE J1349, net 71 kW (95 HP) @ 1,850 rpm  
Operational Weight : 14,000 kg (30,864 lb) - STD.  
Bucket capacity (SAE) : 0.24 ~ 0.76 m<sup>3</sup> (0.31 ~ 0.99 cu. yd)



# Technical Specification

## Engine

### MODEL

Cummins QSB 4.5  
"Common Rail" engine with direct fuel injection and electronic control, 4 valves per cylinder, vertical injectors, water cooled, turbo charged with air to air intercooler. The emission levels are well below the values required for phase III.

### NUMBER OF CYLINDERS

4

### NOMINAL FLYWHEEL POWER

73.5kW(100ps) @ 1850rpm

### MAX TORQUE

458kgfm @ 1500rpm

### PISTON DISPLACEMENT

4,500 cc

### STARTER

24 V / 4.5 kW

### BATTERIES

2 x 12 V / 100 Ah

### AIR CLEANER

Double element with auto dust evacuation.

## Hydraulic System

The heart of the system is the e-EPOS (Electronic Power Optimizing System). It allows the efficiency of the system to be optimized for all working conditions and minimizes fuel consumption. The new e-EPOS is connected to the engine electronic control via a data transfer link to harmonize the operation of the engine and hydraulics.

- The hydraulic system enables independent or combined operations.
- Two travel speeds offer either increased torque or high speed tracking.
- Cross-sensing pump system for fuel savings.
- Auto deceleration system.
- Two operating modes, two power modes.
- Button control of flow in auxiliary equipment circuits.
- Computer-aided pump power control.

### MAIN PUMPS

2 variable displacement axial piston pumps  
max flow: 2 x 114ℓ /min (2 X 30.1 US gpm, 2 X 25.1 lmp gpm)

### PILOT PUMP

Gear pump - max flow: 35ℓ /min

### MAXIMUM SYSTEM PRESSURE

Boom/Arm/Bucket - Normal mode: 357 kgf/cm<sup>2</sup> (350 bar)  
Power mode - 350 kgf/cm<sup>2</sup> (343 bar)  
Travel - 357 kgf/cm<sup>2</sup> (350 bar)  
Swing - 275 kgf/cm<sup>2</sup> (270 bar)

### MAIN RELIEF VALVES

boom arm bucket normal: 330, power 350 travel 350 rotation 270 bar

## Weight

Boom 4,600 mm (15'1") / Arm 2,500 mm (8'2") / Bucket SAE 0.51 m<sup>3</sup> (0.67 yd<sup>3</sup>)

Shoe width	Operating weight	Ground pressure (kgf/cm <sup>2</sup> )
500 mm (1'8")	14,280 kg (31,482 lb)	0.43 kgf/cm <sup>2</sup> (42 kpa, 6.11 psi)
600 mm (2")	14,480 kg (31,922 lb)	0.36 kgf/cm <sup>2</sup> (35 kpa, 5.12 psi)
700 mm (2'4")	14,680 kg (32,363 lb)	0.30 kgf/cm <sup>2</sup> (29 kpa, 4.26 psi)

### WEIGHT WITH DOZER BLADE

STD. - Boom 4,600 mm (15'1") / Arm 2,500 mm (8'2") / Bucket SAE 0.51 m<sup>3</sup> (0.67 yd<sup>3</sup>)

Shoe width	Dozer Blade weight	Operating weight
STD. + 500 mm (1'8")	2,500 mm : 590 kg (1,300 lb)	15,100 kg (33,289 lb)
STD. + 600 mm (2")	2,600 mm : 602 kg (1,327 lb)	15,300 kg (33,730 lb)
STD. + 700 mm (2'4")	2,700 mm : 615 kg (1,356 lb)	15,500 kg (34,171 lb)

\*When the dozer blade is installed, additional weight may be occurred by track frame, dozer cylinder, dozer unit, pin assembly, track shoe.

### Hydraulic Cylinders

The piston rods and cylinder bodies are made of high-strength steel. A shock absorbing mechanism is fitted in all cylinders to ensure shock-free operation and extend piston life.

Cylinders	Quantity	Bore x Rod diameter x stroke
Boom	2	110 X 75 X 1,085mm (4.3" X 3.0" X 3'7")
Arm	1	115 X 80 X 1,108mm (4.5" X 3.1" X 3'8")
Bucket	1	100 X 70 X 900mm (3.9" X 2.8" X 2'11")

### Undercarriage

Chassis are of very robust construction, all welded structures are designed to limit stresses. High-quality material used for durability. Lateral chassis welded and rigidly attached to the undercarriage. Track rollers lubricated for life, idlers and sprockets fitted with floating seals. Tracks shoes made of induction-hardened alloy with triple grouser. Heat-treated connecting pins. Hydraulic track adjuster with shock-absorbing tension mechanism.

#### NUMBER OF ROLLERS AND TRACK SHOES PER SIDE

Upper rollers: 1 / Lower rollers: 7 / Shoes: 46 /  
Total length of track: 3,755mm (12'4")

### Environment

Noise levels comply with environmental regulations (dynamic values).

SOUND LEVEL GUARANTEE - 101 dB(A) (2000/14/EC)  
CAB SOUND LEVEL - 72 dB(A) (ISO 6396)

### Bucket

### Swing Mechanism

An axial piston motor with two-stage planetary reduction gear is used for the swing. Increased swing torque reduces swing time. Internal induction-hardened gear. Internal gear and pinion immersed in lubricant bath. The swing brake for parking is activated by spring and released hydraulically.

SWING SPEED - 0 to 10.7 rpm

### Drive

Each track is driven by an independent axial piston motor through a planetary reduction gearbox. Two levers with control pedals guarantee smooth travel with counterrotation on demand.

TRAVEL SPEED (FAST/SLOW) - 5.0 / 3.0 km/h

DRAWBAR PULL - 12,500 kg (27,560 lbf)

MAXIMUM GRADE - 35° / 70%

### Refill Capacities

FUEL TANK - 234ℓ (61.8 US gal, 51.0 Imp gal)  
COOLING SYSTEM (RADIATOR CAPACITY) - 18ℓ (4.7 US gal, 4.0 Imp gal)  
ENGINE OIL - 11ℓ (2.9 US gal, 2.4 Imp gal)  
SWING DRIVE - 3.8ℓ (1.0 US gal, 0.8 Imp gal)  
FINAL DRIVE (EACH) - 3ℓ (0.8 US gal, 0.6 Imp gal)  
HYDRAULIC SYSTEM - 133ℓ (35.1 US gal, 29.2 Imp gal)  
HYDRAULIC TANK - 93.5ℓ (24.7 US gal, 20.5 Imp gal)

Capacity		Width		Weight	Recommendation				
					4,600mm (15'1") One-piece Boom			4,988 mm (16'4") Two-piece Boom	
PCSA, heaped	CECE heaped	Without side cutters	Width side cutters		2,100mm (6'11")Arm	2,500mm (8'2")Arm	3,000mm (9'10")Arm	2,100mm (6'11")Arm	2,500 mm (8'2")Arm
0.24m <sup>3</sup> (0.31 yd <sup>3</sup> )	0.22m <sup>3</sup>	468.4mm (1'6")	534.0mm (1'9")	294 kg (648 lb)	A	A	A	A	A
0.39m <sup>3</sup> (0.51 yd <sup>3</sup> )	0.35m <sup>3</sup>	736.4mm (2'5")	819.8mm (2'8")	362 kg (798 lb)	A	A	B	A	B
0.45m <sup>3</sup> (0.59 yd <sup>3</sup> )	0.40m <sup>3</sup>	823.8mm (2'8")	911.0mm (3')	402 kg (886 lb)	A	B	B	B	B
0.51m <sup>3</sup> (0.67 yd <sup>3</sup> )	0.45m <sup>3</sup>	907.4mm (3')	911.0mm (3'3")	418 kg (922 lb)	A	B	C	B	C
0.59m <sup>3</sup> (0.77 yd <sup>3</sup> )	0.51m <sup>3</sup>	997.4mm (3'3")	1,081.0mm (3'7")	439 kg (968 lb)	B	C	-	C	-
0.64m <sup>3</sup> (0.84 yd <sup>3</sup> )	0.55m <sup>3</sup>	1,083.4mm (3'7")	1,167.0mm (3'10")	465 kg (1,025 lb)	C	-	-	C	-

A. Suitable for materials with density of 2,000 kg/m<sup>3</sup> (3,370 lb/CU yd) or less  
B. Suitable for materials with density of 1,600 kg/m<sup>3</sup> (2,700 lb/CU yd) or less  
C. Suitable for materials with density of 1,100 kg/m<sup>3</sup> (1,850 lb/CU yd) or less

