



Doosan Infracore
Construction Equipment

DX225LCB

Engine Power (Net)-SAE J1349: 110Kw 148HP @ 1,950rpm

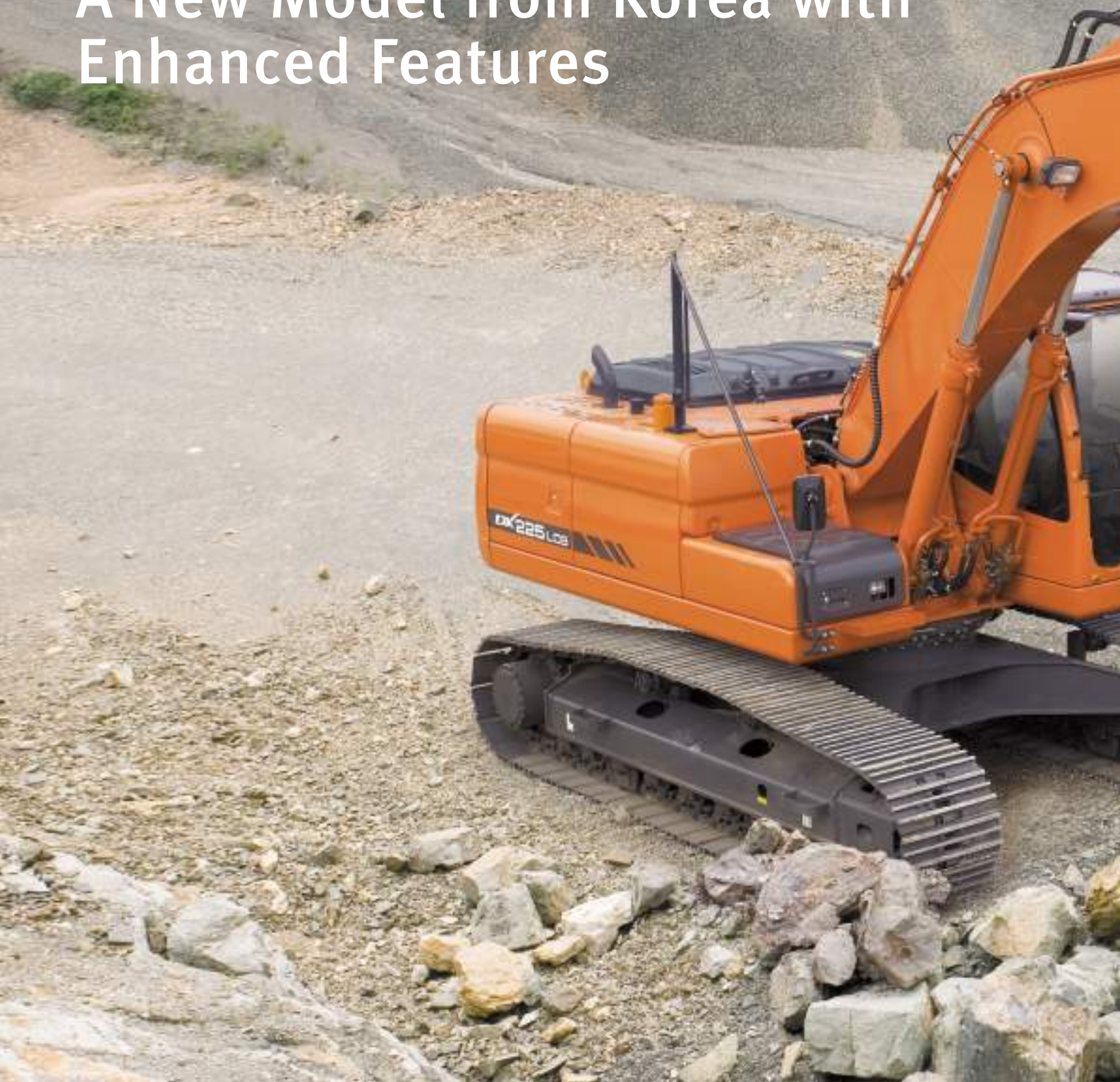
Operational Weight: 21,500kg (47,400lb)

Standard Bucket capacity (SAE): 1.0m³



Doosan DX225LCB Hydraulic Excavator

A New Model from Korea with Enhanced Features



DX225LCB



The new DX225LCB hydraulic excavator has all the advantages of the well renowned model S225 and adds value by the addition of new features that benefit the operator & increase operational efficiency by lowering the cost of operations.

Doosan's revolutionary design philosophy revolves around the common objective of "Optimum value to the End user".

This has resulted in:



Increased Productivity and Enhanced Fuel Efficiency. Electronic optimization of the Hydraulic system with the **Improved Doosan Engine** has resulted in increased Productivity and enhanced Fuel Efficiency.

Improved Ergonomics, Increased Comfort and Excellent all round Visibility ensure Fatigue free, safe and pleasant work environment - Increased Productivity due to high efficiency of operator.

Improved Reliability through the use of tested & proved sub-assemblies with high performance Structural Components subjected to higher and newer methods of stress analysis. This has led to increased Component Life expectancies resulting in reducing running costs - Great savings in Operational Expenses.

Reduced Maintenance reduces Operating costs - High availability of the excavator assuring continuous earnings to owner.

PERFORMANCE

The combination of Improved Engine with new e-EPOS controlled Hydraulic system resulted in creation of an unbeatable Hydraulic Excavator that offers a great **Cost to Performance** ratio. This makes the DXB225LCB very appealing.



DOOSAN DB58TIA Engine

At the heart of the hydraulic excavator is the improved DOOSAN DB58TIA engine. This coupled with excellent and proven Hydraulic system ensures the optimum utilization of power resulting in increased Fuel efficiency.

- Better performance by improved engine (Turbo, Intercooler)
- Energy efficiency and **Auto Idle** reduces fuel consumption



Hydraulic Pump

The Main pumps have a combined maximum flow of 422 /min (2x211 /min). This increases the speed of the hydraulic system resulting in reduced cycle times. A high capacity gear pump increases the pilot line efficiency thereby reducing fatigue and improving controllability.

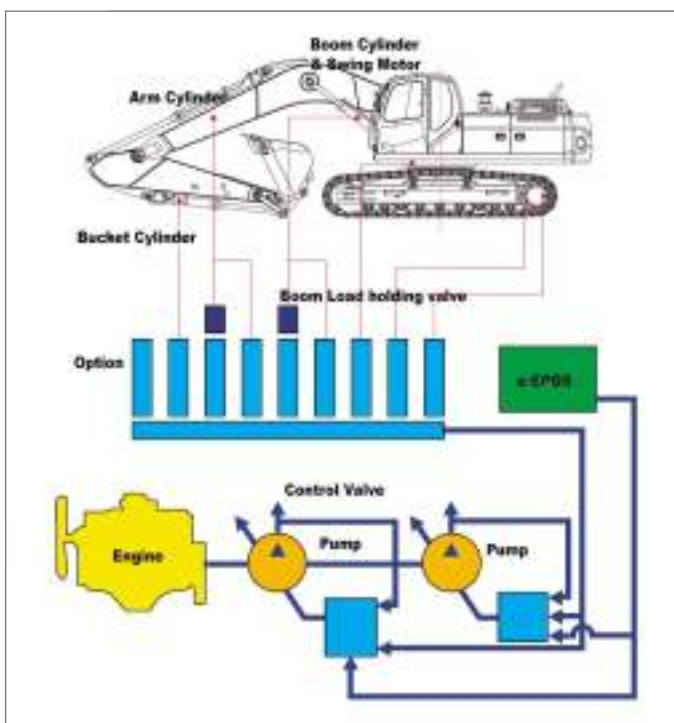
Swing device

Designed to minimize the shocks during the rotation & increase the torque for faster cycle times.

Travel device

New design of travel device gives better performance by improving efficiency with simplified internal structure and components.





EXCAVATOR CONTROL

New e-EPOS system (Electronic Power Optimizing System)

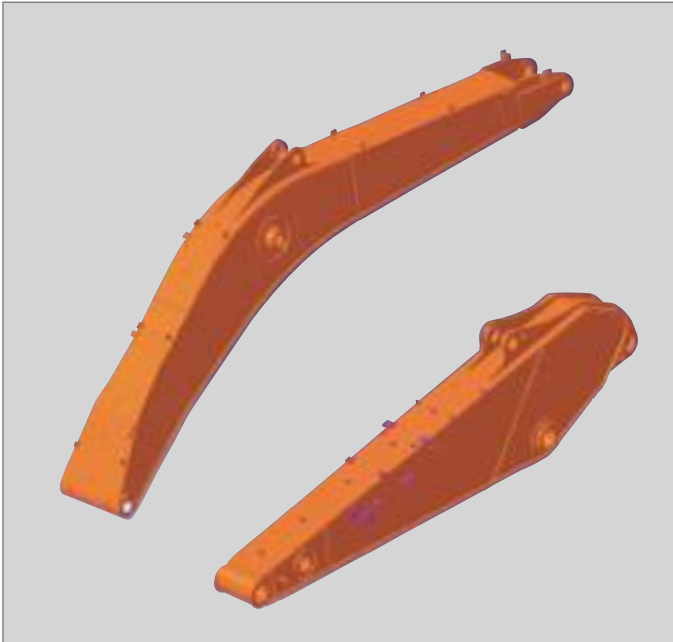
The brains of the hydraulic excavator, the e-EPOS, have been improved, through a CAN (Controller Area Network) communication link, enabling a continuous exchange of information between the engine and the hydraulic system. These units which are perfectly synchronized offer excellent durability & optimum utilization.

The new e-EPOS offers various other advantages resulting in Ease of operation & User-friendliness (In case of any electrical failure the system can be manually operated)

- The availability of a power mode and a standard mode guarantees maximum efficiency under all conditions.
- The automatic deceleration mode increases fuel savings by optimizing the engine power when not required.
- Regulation and precise control of the flow rate required by the equipment are available as a standard.
- A self-diagnosis function enables technical problems to be resolved quickly and efficiently (keeps a log of failures for future reference)
- An operational memory provides a graphic display of the status of the machine.
- Maintenance and oil change intervals can be displayed for proper upkeep of the machines and to provide service history of the machine

RELIABILITY

The reliability of a structural component contributes a lot to operating Costs & thus reduces the Lifetime cost considerably. DOOSAN uses computer-assisted design techniques, highly durable base materials for manufacturing these components. Further the structural items undergo stress and fault analysis thus ensuring that the items perform well in arduous and tough conditions.

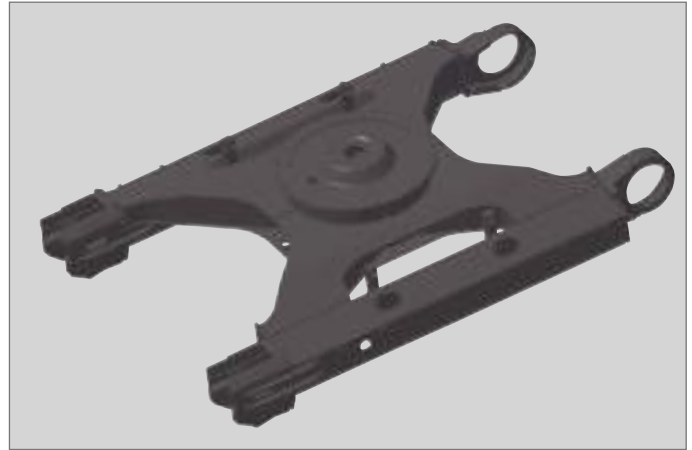


Strengthened Boom

The Shape of the boom has been optimized by finite elements design, allowing the loads to be better distributed throughout the structure. This combined with increased material thickness means improved durability and reliability by limiting element material fatigue.

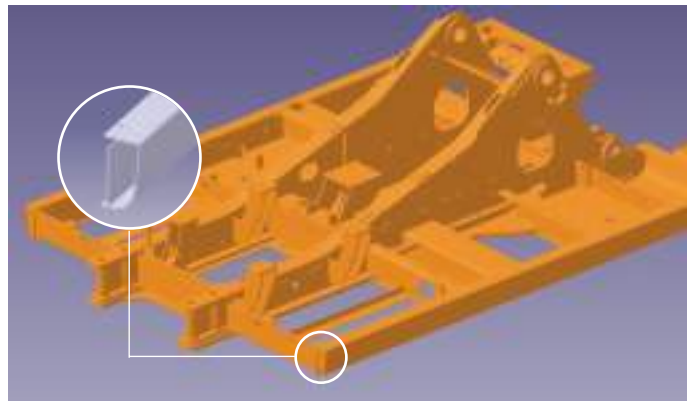
Arm Assembly

In the arm assembly greater strength has been gained by using cast elements and reinforcement around the “bosses” to give it an increased life.



X-chassis

The X-chassis frame section has been designed using finite elements and 3-dimensional computer simulation technique, to ensure greater durability and optimum structural integrity. The swing gear is solid and stable.



D-type Frame

The D-type chassis frame adds strength and minimizes distortions due to shocks that occur in machine operation.



Sintered Bushing

A highly lubricated metal sintered bushing is used for all front pivot points in order to increase the lifetime and durability. This extends the greasing intervals to 500 hours (except for bucket where due to dust entry, greasing is needed regularly)



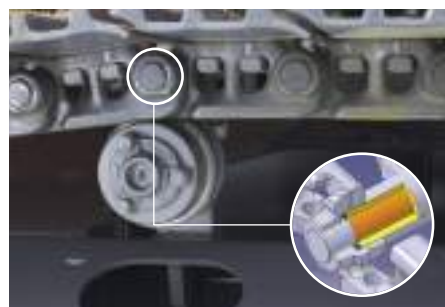
Ultra-hard wear-resistant disc

New materials have been used in order to increase the wear resistance and to increase the service intervals. The longevity is greatly increased by the addition of wear plates on the inside and outside of the bucket lugs



Integrated Track Spring and Idler

The track spring and the idler have been joined directly to achieve high durability and improved convenience of maintenance.



Tracks

The chain is composed of self-lubricating sealed links isolated from all the external contamination. The tracks are locked by mechanically bolted pins.



Polymer shim

A polymer shim is added to the bucket pivot pin to maintain precise control over the equipment.

MAINTENANCE

Longer intervals of Service schedules and Lesser time for periodical maintenance increases the availability of the Excavator for use at site. DOOSAN has developed the DX225LCB with an objective to achieve higher profitability for equipment user.



Engine oil filter

The engine oil filter offers a higher efficiency of filtration allowing the oil change intervals to be increased to 500 hours. It is easy to access and is positioned to avoid contamination from surrounding environment.



Easy maintenance

Access to the radiators and oil coolers is very easy and maintenance can be carried out by standing on the ground. Various parts & sub-assemblies of the engine could be accessed from the top and also through sides by opening side panels.



Hydraulic oil return filter

The protection of the hydraulic system is made more effective by the use of glass fiber filter technology in the main oil return filter. This means that with more than 99.5% of foreign particles filtered out, the oil change intervals is increased.



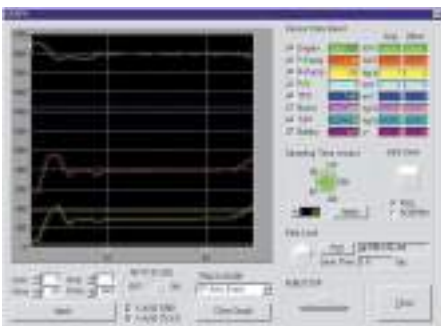
Air cleaner

The large capacity forced Air cleaner removes over 99% of airborne particles, reducing the risk of engine contamination and optimizing the cleaning and cartridge change intervals.



Water separator

High efficiency and large capacity water separator protects the engine by removing most moisture from the fuel.



PC Monitoring (DMS)

A PC monitoring function enables connection to the e-EPOS system, allowing various parameters to be checked during maintenance, such as pump pressures, engine rotation speed, etc. and these data can be stored and printed for subsequent analysis in case of need.



Convenient Fuse Box

The fuse box is conveniently located in a section of the storage compartment behind the operator's seat providing a clean environment and easy access.



Centralized grease inlets for easy maintenance

The arm grease inlets are grouped for easy access.

DX225LCB



HANDLING

Doosan DX225LCB Excavator's power, durability, serviceability & precise controls increase the effectiveness and life expectancy resulting in it being the most sought after machine offering an excellent Return on Investment.



Multi-function Color LCD Monitor Panel

Warning lights

Operation modes

- Mode selection
- Flow rate control
- Auto deceleration
- Display selection

Control panel

With color LCD display



Standard screen

Theft prevention function

Filter/oil information

Operation history

Flow rate control

Contrast control

Choice of operating in 22 worldwide languages (includes **HINDI language also**)

Choice of operating modes

Power mode

- Standard : uses 85% engine power for all work
- Power : uses 100% engine power for heavy work



Control lever

Precise controllability of the Hydraulic functions with responsive Hand levers makes an operator work with ease and speed. These also enhance precision and safe operation especially in sensitive /controlled application areas.

Responsive Hydraulic controls enable operation of bucket for leveling and also lifting and placement of odd loads with precision and safety when the need arises.

Additional control buttons provided on the lever as a standard feature facilitate fitment of Rock breaker, Grabs ,Clam shovels Crushers and other implements with ease and without alteration to original layout. This saves a lot of costs and improves adaptability.



Mobile phone box



12V Power socket (Opt)



Cigarette lighter (Opt)



Glass antenna

COMFORT

DX225LCB

The speed of operation & efficiency of the Excavator is directly linked to the efficiency of the operator and his ability to work in comfort for longer periods.

Doosan DX225LCB has been designed keeping in view of this aspect. This has resulted in significant improvement of work environment by improved ergonomics, cabin layout for controls and superior Air conditioning apart from safety for the operator.

More space, better visibility, air conditioning and a very Comfortable, adjustable bucket seat.

These are all elements that ensure that the operator can work for hours and hours in comfort without stress or fatigue.



Control panel

Correct positioning with clear controls makes the operator's task easier.



The high performance air conditioning provides an air flow which is adjusted and electronically controlled for the conditions. 5 operating modes enable even the most demanding operator to be satisfied.



Air suspension seat (Optional.)

Equipped with various functions of adjustment back and forth and lumbar support. This reduces the transmission of vibrations during work effectively.

Also the seat warmer is provided to take care of winter months.



Visibility has been improved in all directions and the size of the cab has been increased.



Appropriate storage spaces show the attention given to the operator comfort.



Comfortable 2-stage sliding seat



Control stand (Telescopic Function) (optional)



CD Player



Audio Button

Audio Button has been provided in such a way that the operator can turn on/off the radio, control the volume and select a channel with ease and comfort

* ENGINE

• Model

Doosan DB58TIA
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 phase1.

• Number of cylinders

6

• Rated flywheel horse power

110 kw (150 PS) @ 1,950 rpm (DIN 6721)
110 kw (148 HP) @ 1,950 rpm (SAE J1349)

• Max torque

58.5 kgf.m (573.7Nm) at 1,400 rpm

• Piston displacement

5,785 cc

• Bore & stroke

102 mm x 118 mm

• 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 hydraulic system enables independent or combined operations.
- 2 travel speeds offer either increased torque or high speed tracking.
- Cross-sensing pump system for fuel savings.
- Auto deceleration system.
- 2 power modes (Standard, Power)
- 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 211 /min

• Pilot pump

Gear pump - max flow : 28.5 /min

• Maximum system pressure

Boom/arm/Bucket :
Normal mode: 330 kgf/cm² (324 bar)
Travel: 330 kgf/cm² (324 bar)
Swing: 270 kgf/cm² (264 bar)

* WEIGHT

Considering Boom 5,700 mm (18'8") ; Arm 2,400 mm (7'10");

Bucket SAE 1.0 m ³ (1.30 yd ³)	Shoe width	Operating weight	Ground pressure (kgf/cm ²)
Triple Grouser	(Std)600 mm (2')	21,500 kg (47,399 lb)	0.45 kgf/cm ² (44 kpa, 6.40 psi)
	700 mm (2'4")	21,800 kg (48,060 lb)	0.40 kgf/cm ² (39 kpa, 5.69 psi)
	800 mm (2'8")	22,100 kg (48,721 lb)	0.35 kgf/cm ² (34 kpa, 4.78 psi)
	900 mm (2'11")	22,400 kg (49,383 lb)	0.31 kgf/cm ² (30 kpa, 4.41 psi)

* 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 extended piston life.

Cylinders	Quantity	Bore x Rod diameter x stroke
Boom	2	120 X 85 X 1,260 mm
Arm	1	140 X 100 X 1,450 mm
Bucket	1	120 X 85 X 1,060 mm

* UNDERCARRIAGE

Chassis are of very robust construction, all welded structures are designed to limit stresses.

High-quality material used for durability.

Lateral chassis is 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 double grouser.

Heat-treated connecting pins.

Hydraulic track adjuster with shock-absorbing tension mechanism.

• Number of rollers and track shoes per side

Upper rollers : 2 (standard shoes)

Lower rollers : 9

Shoes : 49

Total length of track : 4,445 mm

* ENVIRONMENT

Noise levels comply with environmental regulations (dynamic values).

• Sound level guarantee

103 dB(A) (2000/14/EC)

• Cab sound level

73 dB(A) (ISO 6396)

* SWING MECHANISM

- An axial piston motor with 2-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 11.0 rpm

Swing Torque : 6,477 kf.m

* DRIVE

Each track is driven by an independent axial piston motor through a 3 stage planetary reduction gearbox.

Two levers with control pedals guarantee smooth travel with counter-rotation on demand.

• Travel speed (fast/slow)

5.5 / 3.0 km/h

• Maximum traction force

22,200 / 11,700 kgf (22.2 ton / 11.7 ton)

• Maximum gradeability

70% (350)

* REFILL CAPACITIES

• Fuel tank

400

• Cooling system (Radiator capacity)

24

• Engine oil

25

• Swing drive Gear Oil

5

• Travel device (each) Gear Oil

2 * 3.3

• Hydraulic tank

140

* BUCKET

Capacity	Width		Weight (kg)		Recommendation
					5,700mm (18'8") Boom
SAE, heaped	Without Side Cutters	With Side Cutters	Without Side Cutters	Without Side Cutters	2,400mm (7' 10") Arm
0.93 m ³	1,250 mm	1,309 mm	883 kg	911 kg	Suitable for materials with density of 2000 kg/m ³ or less
1.0 m ³	1,335 mm	1,401 mm	950 kg	978 kg	Suitable for materials with density of 2000 kg/m ³ or less

STANDARD AND OPTIONAL EQUIPMENT

* STANDARD EQUIPMENT

• Hydraulic system

- Boom and arm flow regeneration
- Boom and arm holding valves
- Swing anti-rebound valves
- Spare ports(Control valve)

• Cabin & Interior

- Viscous cab mounts
- All weather sound suppressed type cab
- Air conditioner & Heater
- Adjustable suspension seat with head rest and adjustable arm rest
- Pull-up type front window and removable lower front window
- Room light
- Intermittent windshield wiper
- Engine overheat prevention system
- Cup holder
- Hot & Cool box
- LCD color monitor panel
- E/G RPM control dial
- AM/FM radio
- Remote radio ON/OFF switch
- CD player
- 12V spare power socket
- Serial communication port for laptop PC interface
- Joystick lever with 2 switches
- Sun roof

• Safety

- Large handrails and step
 - Convex metal anti-slip plates
- Seat belt
- Hydraulic safety lock lever
- Safety glass
- Hammer for emergency escape
- Right and left rearview mirrors
- Battery protector cover

• Others

- Double element air cleaner
- Water separator
- Fuel filter
- Dust screen for radiator/oil cooler
- Engine restart prevention system
- Self-diagnostic system
- Alternator(24V, 50 amps)
- Electric horn
- Halogen working lights(frame mounted 1, boom mounted 2)
- Track guards
- Greased and sealed track link
- Hydraulic oil tank air breather filter
- Fuel Filler Pump
- Hydraulic Track Adjuster

* OPTIONAL EQUIPMENT

Some of these optional equipments may be standard in some markets. Some of this optional equipment is not available in some markets. You must check with the local DOOSAN dealer to know about the availability or to release the adaptation following the needs of the applications.

• Safety

- Boom and arm hose rupture protection valve
- Overload warning device
- Cabin Top/Front guard(ISO 10262, FOGS standard)
- Travel & swing alarm
- Rotation beacon
- Lock Valve

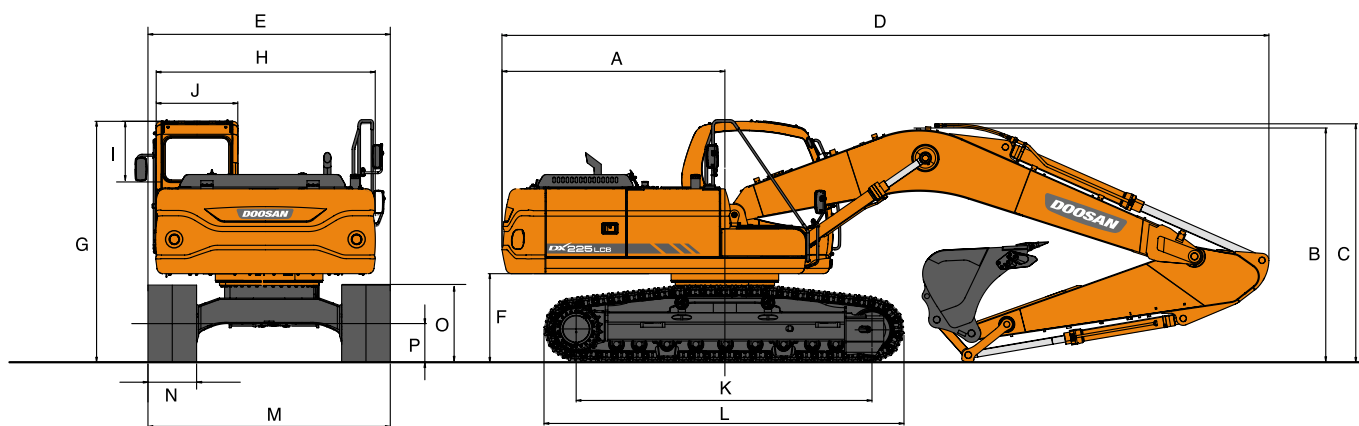
• Cabin & Interior

- Air suspension seat
- Rain Shield

• Others

- Piping for crusher
- Piping for quick clamp
- Piping Option
 - Breaker with flow control valve - Crusher
 - Crusher with tilting - Rotating
 - Clamshell - Quick Clamp
- 700mm/800mm/900mm shoe
- Lower wiper
- Fuel heater
- 80A alternator
- Fuel Filler Pump
- Working Lights
 - 4-front/2-rear on cabin
 - 2-front on cabin
 - 1 on counterweight
- Counterweight

DIMENSIONS



* DIMENSIONS

Boom 5,700 mm (18'8") - Arm 2,400 mm (7'10") - Shoe 600 mm (2') - Std

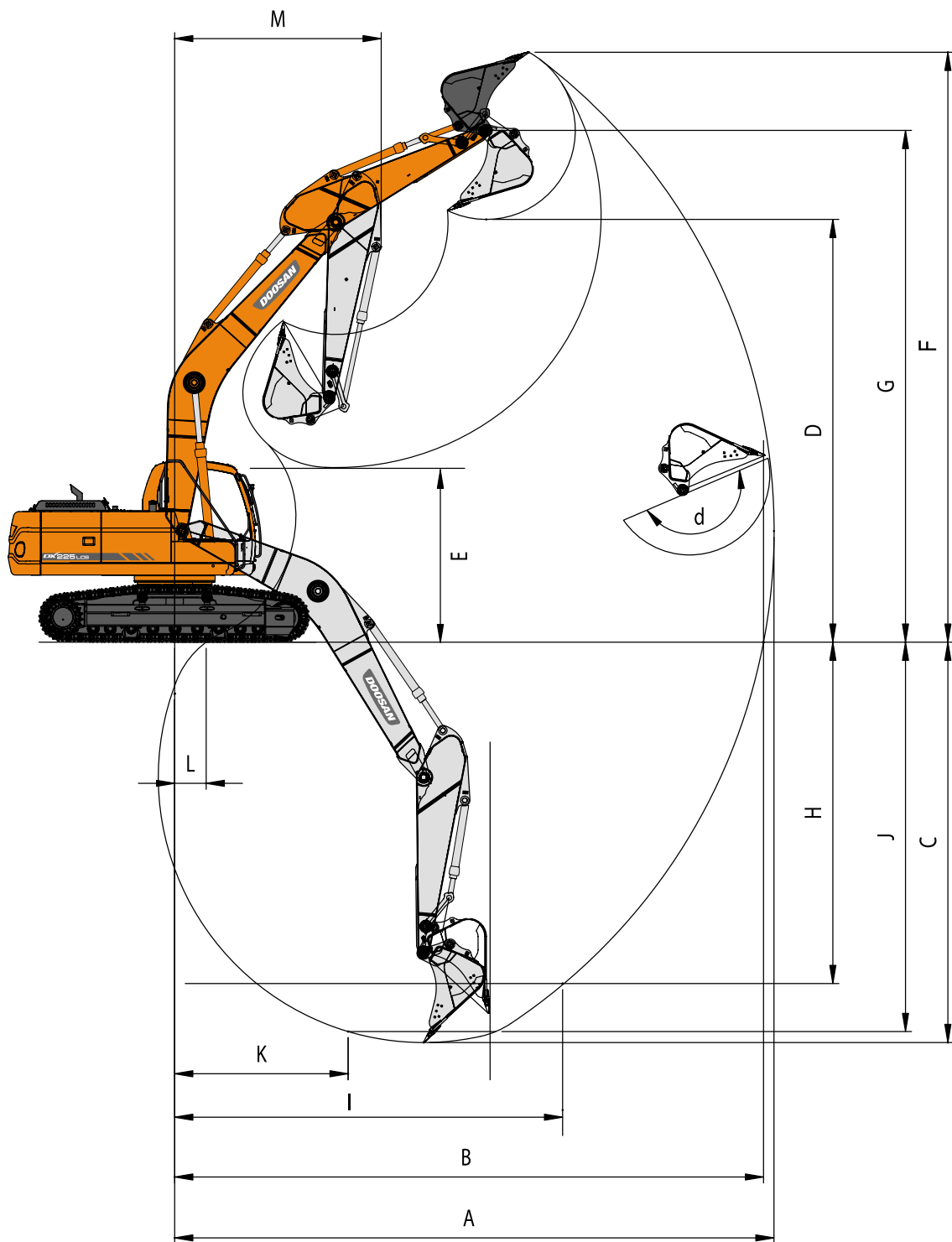
Boom type (One piece)	5,700mm(18'8")
Arm type	2,400mm (7' 10")
Bucket type (SAE)	1.0m ³
A Tail Swing Radius	2,790mm (9' 3")
B Shipping Height (Boom)	3,045mm (10')
C Shipping Height (Hose)	3,110mm (10' 2")
D Shipping Length	9,540mm (31' 4")
E Shipping Width	2,990mm (9' 10")
F C/Weight Clearance	1,055mm (3' 6")
G Height Over CAB.	2,975mm (9' 9")
H House Width	2,710mm (8' 11")
I CAB. Height above House	845mm (2' 9")
J CAB. Width	960mm (3' 2")
K Tumbler Distance	3,650mm (12')
L Track Length	4,445mm (14' 7")
M Undercarriage Width	2,990mm (9' 10")
N Shoe Width	600mm (2')
O Track Height	947mm (3' 1")
P Car Body Clearance	480mm (1' 7")

* DIGGING FORCE (ISO)

Bucket (SAE)	1.0m ³
Digging force	12,400 kgf
	121.8 kN
	27,337 lbf
Arm	2,400mm
Digging force	11,200 kgf
	110 kN
	24,692 lbf

At power boost (ISO)

WORKING RANGE



*** WORKING RANGE**

Boom 5,700 mm (18'8") - Arm 2,400 mm (7'10") - Bucket 1.0 m³

Boom length	5,700mm(18'8")
Arm type	2,400mm (7' 10")
Bucket type (SAE)	1.0m ³
A. Max. digging reach	9,495 (31' 2")
B. Max. digging reach at ground level	9,313 (30' 7")
C. Max. digging depth	6,125 (20' 2")
D. Max. dumping height	6,814 (22' 5")
E. Min. dumping height	3,055 (10' 1")
F. Max. digging height	9,737 (31' 11")
G. Max. bucket pin height	8,298 (27' 3")
H. Max.vertical wall depth	5,932 (19' 6")
I. Max. radius vertical	5,228 (17' 2")
J. Max. digging depth(8'level)	5,925 (19' 5")
k. Min. radius 8' line	2,881 (9' 6")
L. Min. digging reach	1,675 (5' 6")
M. Min.swing radius	3,409 (11' 2")
d. Bucket angle (deg)	177°



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The illustrations do not necessary show the product in standard version.
All products and equipment are not available in all markets.
Materials and specifications are subject to change without prior notice.