



## Infracore

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### DAEWOO becomes DOOSAN

On the 29th of April 2005, the DOOSAN group acquired DAEWOO Heavy Industries & Machinery.

The company, now a major player with regard to industrial and public-sector infrastructure projects, is looking decisively towards the future with its advanced technologies and its investments in research and development.

The group's strengths are built on over 100 year of experience, & a solid financial structure, allowing it to commit to large-scale investments for ensured future success.

DOOSAN Infracore intends to become a worldwide leader in offering total industrial solutions to its clients.

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

PBP D300L00 0608

# DX300LL

► Operational Weight(Without Grapple):  
35,100kg(77,381lb)

► Rated Engine Power :

DIN 6271, gross ..... 151kw(205ps)/1,900rpm

DIN 6271, net ..... 147kw(200ps)/1,900rpm

SAE J1349, gross ..... 151kw(202HP)/1,900rpm

SAE J1349, net ..... 147kw(197HP)/1,900rpm



**DOOSAN**  
Infracore



# STANDARD AND OPTIONAL EQUIPMENT



## Standard equipment

All-weather sound cab with 360° visibility. Safety glass windows. Wide window wiper. Sliding fold-in front window. Sliding side window. Lockable door. Deluxe fully adjustable reclining seat. Lever lock. Cab heater, air conditioning, stereo cassette/radio. Hydraulic tilt cab riser with log guard.

• **Number of cylinders**

Engine coolant temperature gauge. Electric hour meter. Fuel meter. Tachometer. Voltmeter. Hydraulic oil pressure gauge. Operations monitor : (Engine oil pressure, battery charge, engine oil filter clogging, air cleaner clogging and hydraulic oil filter clogging). Alarm buzzer (Engine oil pressure and engine coolant temperature.)



Doosan Daewoo DX300 Log loader :

## A New Model with Novel Features



The new DX300 log loader has all the advantages of the previous model, the Solar 300 log loader but now offers additional added value to the operator.

The key phrase used during the development of the DX300 log loader was "giving optimum value to the end user." This translates, in concrete terms, into :

**Increased production and improved fuel economy** thanks to electronic optimization of the hydraulic system and the new generation DOOSAN engine (stage III).

**Improved ergonomics**, increased comfort and excellent all round visibility ensuring a safe and pleasant working environment.

**Improved reliability** through the use of high performance materials combined with new methods of structural stress analysis have lead to increased component life expectancy, thus reducing running costs.

**Reduced maintenance** increased the availability of the log loader and reduces running costs.





# HANDLING

The log loader's power, durability, ease of servicing and its precise control increase its effectiveness and life expectancy. With the DX300LL, DOOSAN offers an excellent return on investment.



Multi-function Color LCD Monitor Panel

Warning lights

Control panel  
With color LCD display

Operation modes  
· Mode selection  
· Flow rate control  
· Auto deceleration  
· Display selection



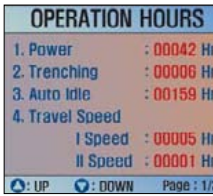
Standard screen



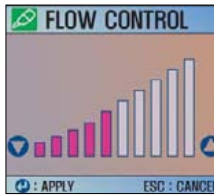
Theft prevention function



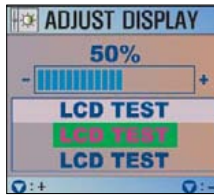
Filter/oil information



Operation history



Flow rate control



Contrast control



**Control lever**  
Very precise control of the equipment increases versatility, safety and facilitates tricky operations requiring great precision. Levelling operations and the movement of lifted loads in particular are made easier and safer.  
  
The control levers have additional electrical buttons for controlling other additional equipment (for example, grabs, crushers, grippers, etc.)



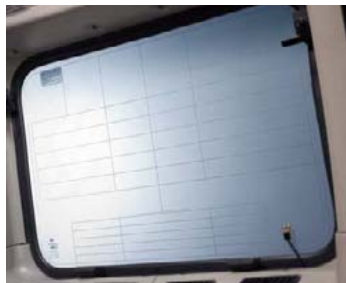
Cellular phone box



12V Power socket



Cigarette lighter



Glass antenna

# COMFORT

The work rate of the log loader is directly linked to the performance of its operator. DOOSAN designed the DX300LL by putting the operator at the centre of the development goals. The result is significant ergonomic value that improves the efficiency and safety of the operator.

More space, better visibility, air conditioning, a very comfortable seat... These are all elements that ensure that the operator can work for hours and hours in excellent conditions.



**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. Five operating modes enable even the most demanding operator to be satisfied.

**Air suspension seat (opt)**  
Equipped with various functions of adjustment forth and back and, and lumbar support, it reduces the vibration of equipment transmitted during work in an effective way. Also for considering winter working environment, Seat warmer functions equipped.



Comfortable 2-stage sliding seat



Control stand (Telescopic Function)



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.



MP3/CD Player (Opt.)



**Audio Button**  
Audio Button has been positioned in a way that the driver can turn on/off the radio, control the volume, and select a channel conveniently.



# PERFORMANCE

The performance of the DX300LL has a direct effect on its productivity. Its new "Common Rail" engine and new e-EPOS controlled hydraulic system have combined to create an unbeatable log loader, with a cost/performance ratio that makes the DX300LL even more appealing.



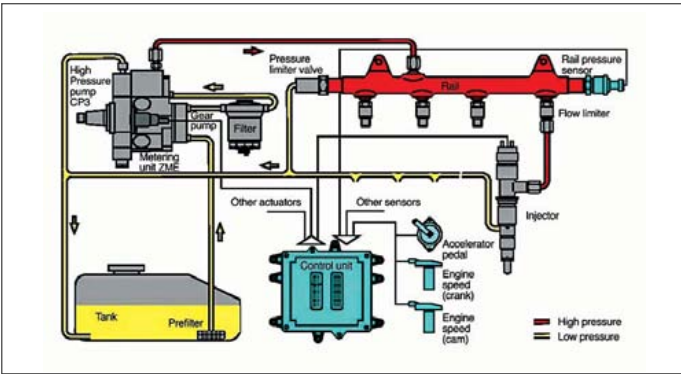
"COMMON RAIL" DOOSAN DL08 ENGINE

At the heart of the hydraulic excavator is the new "Common Rail" DOOSAN DL08 engine. It is combined with the new e-EPOS electronic control system, for optimum power and fuel saving.

The new engine produces 197 hp(147 kw/200 PS) at only 1,900 rpm, and more torque, due to its careful design combined with the use of common rail injection and 4 valves per cylinder. These features help optimize combustion and minimize pollution through reduced Nox & particulate emissions.

Increased torque allows efficient use of the power of the hydraulic system.

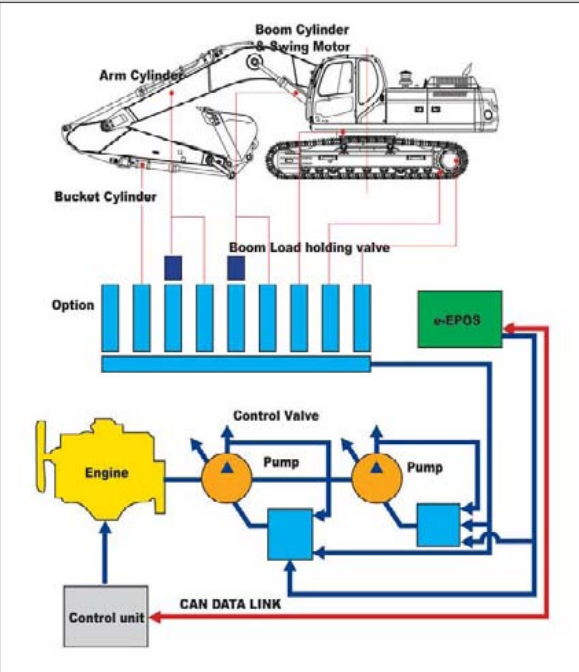
- Faster working cycles increase productivity.
- Increased torque means the excavator is able to move more easily.
- Energy efficiency reduces fuel consumption.



## EXCAVATOR CONTROL

### New e-EPOS system (Electronic Power Optimizing System)

The brains of the hydraulic excavator, the e-EPOS, have been improved and now can electronically link to the engine's ECU (Electronic Control Unit), through a CAN (Controller Area Network) communication link, enabling a continuous exchange of information between the engine and the hydraulic system. These units are now perfectly synchronised.



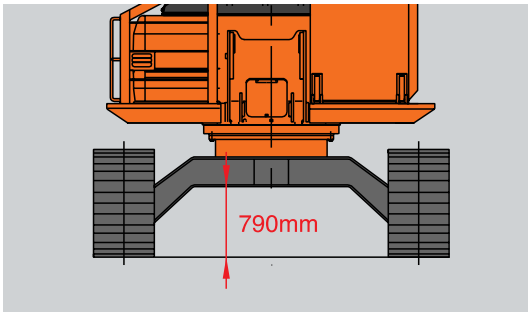
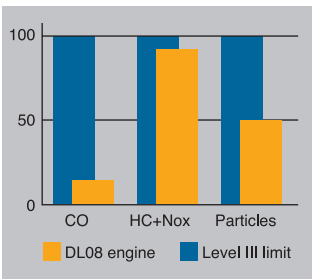
The advantages of the new e-EPOS impacts at several levels,

Ease of operation and user-friendliness:

- The availability of a power mode and a normal operating mode guarantee maximum efficiency under all conditions.
- Electronic control of fuel consumption optimizes efficiency.
- The automatic deceleration mode enables fuel saving.
- Regulation and precise control of the flow rate required by the equipment are available as standard.
- A self-diagnosis function enables technical problems to be resolved quickly and efficiently.
- An operational memory provides a graphic display of the status of the machine.
- Maintenance and oil change intervals can be displayed.

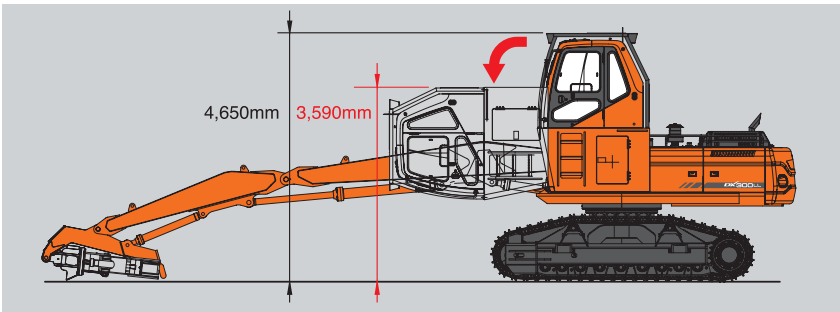
DOOSAN Infracore is aware of the importance of protecting the environment. Ecology was uppermost in the minds of the research workers right from the start of the design of the new machines. The new challenge for the engineers is to combine the protection of nature with equipment performance and to this end DOOSAN has been investing heavily.

The new DOOSAN engine respects and protects the environment, limiting all types of toxic emissions.



### Stable lower running part

Heightening the lowest ground level to 790mm (2'7"), it prevents the damage of the lower part in running at a rough area and swampy land.



### Folding type cabin

Lowering the ground level with the cabin folded forth at transport, it is easy to move. (4,650mm (15'3") → reduced to 3,590mm (11'9"))

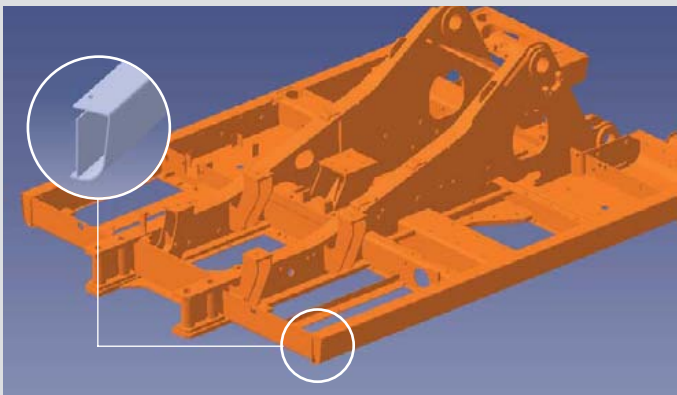


# RELIABILITY

The reliability of an item of plant contributes to its overall lifetime operating costs. DOOSAN uses computer-assisted design techniques, highly durable materials and structures then test these under extreme conditions  
Durability of materials and longevity of structures are our first priorities.



**Cabin protector**  
To perfectly protect a driver from a dangerous object such as wood or stone, a guard is equipped at the upper and front part of the cabin.(Meeting international standard ISO 10262)  
Equipped with 4 lamps at the upper part of the guard, it is convenient to work at night.



**D-type frame**  
The D-type frame and chassis frame add strength and minimize distortion due to shocks.



**Pump coupling**  
A polymer material is used to produce the coupling between the pump and engine. This material has a long life and reduces noise and vibration levels.



**Low roller**  
With improvement of lower roller body internal structure, and strict test verification of reliability, it has secured a higher level endurable quality, and a full guard was applied to protect the lower roller and prevent the derailment from a track at a rugged area work.



**Travel motor**  
Running drive force improved with the efficiency improvement of the running device, its performance is excellent at a slope or swampy area.



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

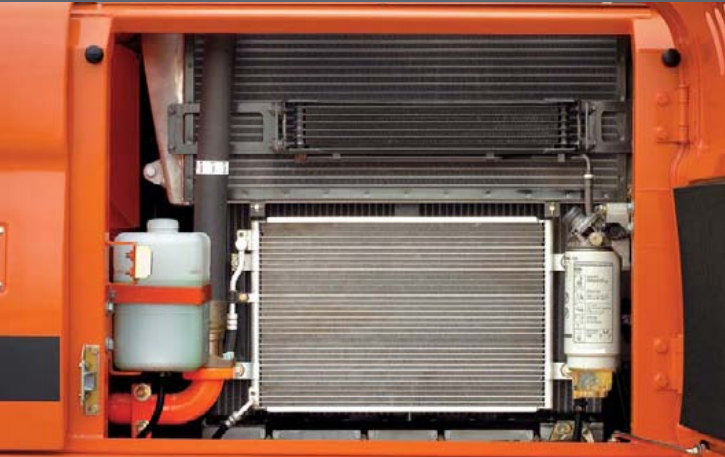


# MAINTENANCE

Short maintenance operations at long intervals increase the availability of the equipment on site. DOOSAN has developed the DX300LL with a view to high profitability for the user.



**Engine oil filter**  
The engine oil filter offers a high level of filtration allowing the oil change interval to be increased to 500 hours. It is easy to access and is positioned to avoid contaminating the surrounding environment.



**Easy maintenance**  
Access to the various radiators is very easy, making cleaning easier. Access to the various parts of the engine is from the top and via side panels.



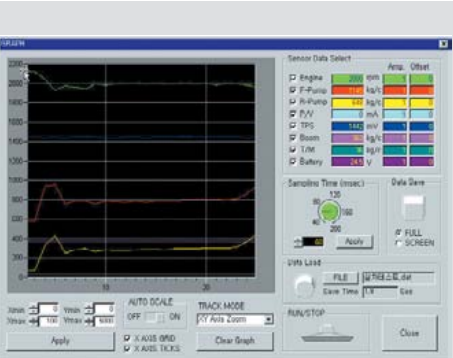
**Hydraulic oil return filter**  
The protection of the hydraulic system is made more effective by the use of glass fibre filter technology in the main oil return filter. This means that with more than 99.5% of foreign particles filtered out, the oil change interval is increased.



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



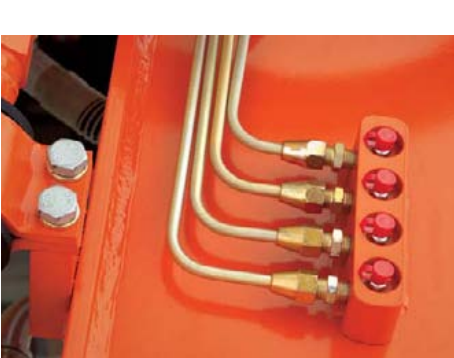
**Fuel filter**  
High efficiency fuel filtration is attained by the use of multiple filters, including a fuel pre-filter fitted with a water separator that removes most moisture from the fuel.



**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 can be stored and printed for subsequent analysis.



**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.





# TECHNICAL SPECIFICATIONS



## \* ENGINE

♦ <b>Model</b>	Doosan DL08 "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
♦ <b>Number of cylinders</b>	6
♦ <b>Nominal flywheel power</b>	147 kW(200PS) at 1,900 rpm (DIN 6271 net) 147 kW(197HP) at 1,900 rpm (SAE J1349 net)
♦ <b>Max torque</b>	93 kgf.m(912 Nm) at 1,300 rpm
♦ <b>Piston displacement</b>	7,640 cc (466cu.in)
♦ <b>Bore &amp; stroke</b>	108 mm x 139 mm (4.3" X 5.5")
♦ <b>Starter</b>	24 V / 6 kW
♦ <b>Batteries</b>	2 x 12 V / 150 Ah
♦ <b>Air cleaner</b>	Double element and pre-filtered Turbo with auto dust evacuation.

## \* WEIGHT

Boom 6,300 mm (20'8") • Arm 3,910 mm (12'10") • Grapple None

	Shoe width	Operating weight	Ground pressure (kgf/cm²)
Double grouser	600 mm (2')	34,800 kg (76,720 lb)	0.67 kgf/cm² (66 kpa, 9.5 psi)
	(Std) 700 mm (2'4")	35,100 kg (77,381 lb)	0.58 kgf/cm² (57 kpa, 8.2 psi)
	800 mm (2'8")	35,400 kg (78,043 lb)	0.51 kgf/cm² (50 kpa, 7.3 psi)

## \* 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.

♦ <b>Main pumps</b>	2 variable displacement axial piston pumps max flow: 2 x 246 ℓ /min (2 X 65US gpm, 2 X 54 Imp gpm)
♦ <b>Pilot pump</b>	Gear pump - max flow: 28.5 ℓ /min (7.5US gpm, 6.3 Imp gpm)
♦ <b>Maximum system pressure</b>	Boom/arm/heel: Normal mode: 330 kgf/cm²(324 bar) Power mode: 350 kgf/cm²(343 bar) Travel: 335 kgf/cm²(328 bar) Swing: 275 kgf/cm²(270 bar)

## \* 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	150 X 100 X 1,190mm(5.9" X 3.9" X 3'11")
Arm	1	180 X 120 X 1,405mm(7.0" X 4.7" X 4'7")
Heel	1	150 X 100 X 1,010mm(5.9" X 3.9" X 3'4")

## \* 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 double grouser. Heat-treated connecting pins. Hydraulic track adjuster with shock-absorbing tension mechanism.

♦ <b>Number of rollers and track shoes per side</b>	Upper rollers: 2 (standard shoes) Lower rollers: 9 Shoes: 51 Total length of track: 4,920mm (16'2")
-----------------------------------------------------	--------------------------------------------------------------------------------------------------------------

## \* ENVIRONMENT

Noise levels comply with environmental regulations (dynamic values).

♦ <b>Sound level guarantee</b>	104 dB(A) (2000/14/EC)
♦ <b>Cab sound level</b>	73 dB(A) (ISO 6396)

## \* 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 9.9 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 counter-rotation on demand.

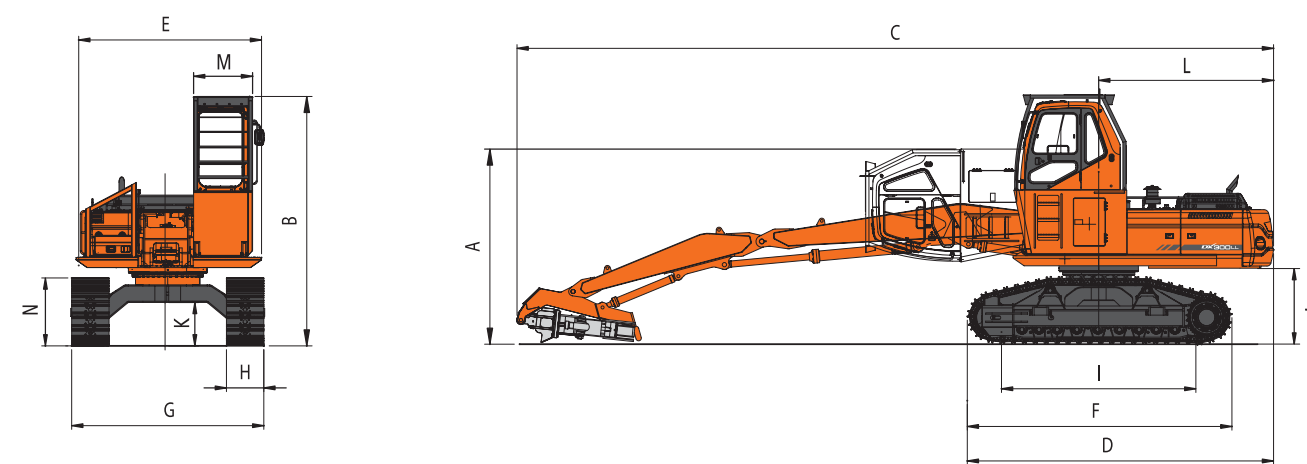
♦ <b>Travel speed (fast/slow)</b>	4.6/3.1km/h (2.9/1.9mph)
♦ <b>Maximum traction force</b>	19.700 / 27,800 kgf (61,288lbf)
♦ <b>Maximum grade</b>	35° / 70%

## \* REFILL CAPACITIES

♦ <b>Fuel tank</b>	500 ℓ (132.1 US gal, 110 Imp gal)
♦ <b>Cooling system (Radiator capacity)</b>	35 ℓ (9.2 US gal, 7.7 Imp gal)
♦ <b>Engine oil</b>	36 ℓ (9.5 US gal, 7.9 Imp gal)
♦ <b>Swing drive</b>	6 ℓ (1.6 US gal, 1.3 Imp gal)
♦ <b>Final drive (each)</b>	5.5 ℓ (1.5 US gal, 1.2 Imp gal)
♦ <b>Hydraulic system</b>	480 ℓ (126.8 US gal, 105.6 Imp gal)
♦ <b>Hydraulic tank</b>	280 ℓ (74 US gal, 61.6 Imp gal)



# DIMENSIONS

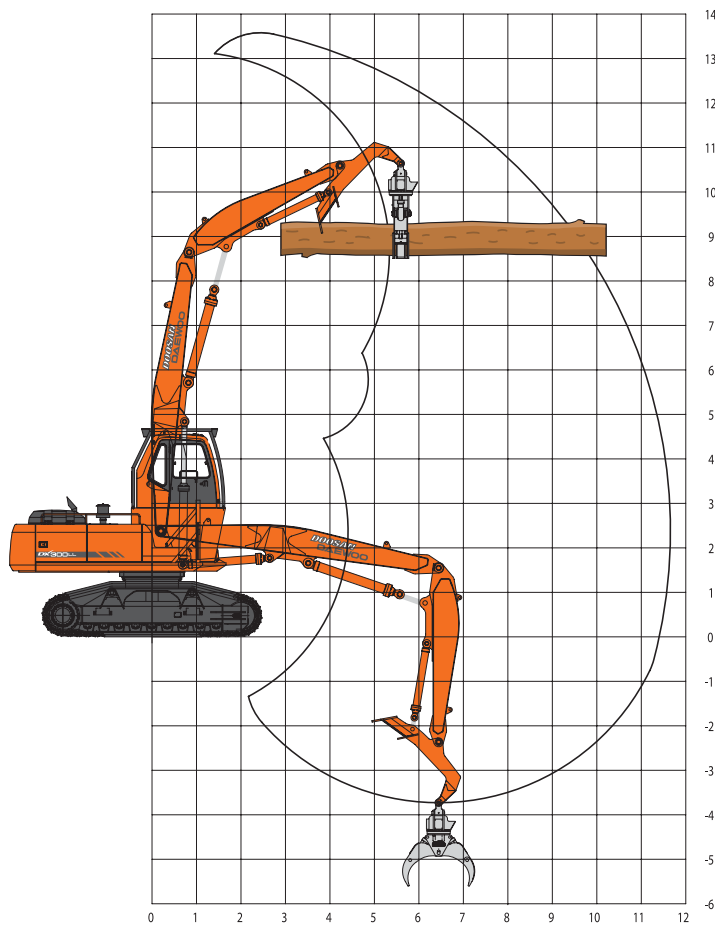


Dimensions - Boom 6,300 mm (20'8") - Arm 3,910 mm (12'10") - Grapple None - Shoes 700 mm (2'4") - Std

## \* DIMENSIONS

A	Overall Transport Height W/Attachment	3,590mm(11'9")
B	Overall Height	4,650mm(15'3")
C	Overall Length	14,540mm(47'8")
D	Overall Length (Without Attachment)	5,675mm(18'7")
E	Width of Upper Structure	3,480mm(11'5")
F	Track Overall Length	4,920mm(16'2")
G	Track Ooverall Width	3,600mm(11'10")
H	Track Shoe Width	700mm(2'4")
I	Tumbler Distance	4,010mm(13'2")
J	Countweight Clearance	1,415mm(4'8")
K	Minimum Ground Clearance	790mm(2'7")
L	Tail Swing Radius	3,200mm(10'6")
M	Cabin Guard Width	1,105mm(3'8")
N	Track Height	1,250mm(4'1")

# WORKING RANGES

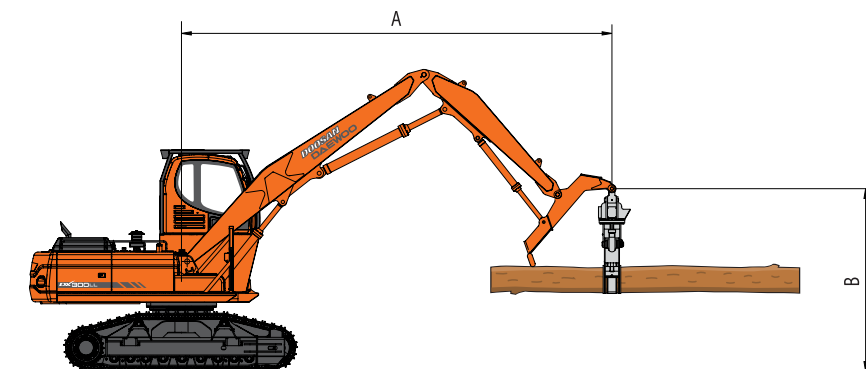


## \* WORKING RANGE

Max. Loading reach	11,650mm (38'3")
Max. Loading Depth	3,728mm (12'3")
Max. Loading Height	13,580mm (44'7")
Rear swing radius	3,200mm (10'6")
Min. swing radius	4,182mm (13'9")



# LIFTING CAPACITY



**DX300LL**

## Standard Configuration

### Metric

Boom : 6,300mm(20'8") Arm : 3,910mm(12'10") Grapple : None Shoe : 700mm(2'4") - Std Unit : 1,000kg

A(m) B(m)	3.05m		4.57m		6.10m		7.62m		9.14m		10.67m	
12.19m			11.508	11.508	9.498	9.498						
10.67m					8.759	8.759	8.342	7.366				
9.14m					8.237	8.237	7.825	7.593	7.480	5.529		
7.62m					8.364	8.364	7.788	7.661	7.330	5.557		
6.10m					9.018	9.018	8.119	7.584	7.416	5.566	5.806	4.218
4.57m			8.255	8.255	10.111	10.111	8.695	7.403	7.498	5.489	5.774	4.187
3.05m			14.089	14.089	11.263	10.129	9.358	7.149	7.366	5.362	5.738	4.150
1.52m			16.402	14.701	12.397	9.607	9.562	6.890	7.226	5.230	5.688	4.105
0 (Ground)			11.245	11.245	12.959	9.222	9.335	6.681	7.112	5.121	5.656	4.073
-1.52m	4.069	4.069	7.661	7.661	12.610	9.027	9.213	6.568	7.058	5.071	5.652	4.069
-3.05m			11.335	11.335	11.331	8.986	8.763	6.536				

### Feet

Unit : 1,000lb

A(ft) B(ft)	10ft		15ft		20ft		25ft		30ft		35ft	
40ft			*25.37	*25.37	*20.94	*20.94						
35ft					*19.31	*19.31	*18.39	16.24				
30ft					*18.16	*18.16	*17.25	16.74	*16.49	12.09		
25ft					*18.44	*18.44	*17.17	16.89	*16.16	12.25		
20ft					*19.88	*19.88	*17.90	16.72	*16.35	12.27	12.80	9.30
15ft			*18.20	*18.20	*22.29	*22.29	*19.17	16.32	16.53	12.10	12.73	9.23
10ft			*31.06	*31.06	*24.83	*22.33	*20.63	15.76	16.24	11.82	12.65	9.15
5ft			*36.16	32.41	*27.33	21.18	21.08	15.19	15.93	11.53	12.54	9.05
0 (Ground)			*24.79	*24.79	*28.57	20.33	20.58	14.73	15.68	11.29	12.47	8.98
-5ft	*8.97	*8.97	*16.89	*16.89	*27.80	19.90	20.31	14.48	15.56	11.18	12.46	8.97
-10ft			*24.99	*24.99	*24.98	19.81	*19.32	14.41				

1. The load point is at the heel to grapple pin.
2. \* Rated loads are based on hydraulic capacity.
3. Rated loads do not exceed 87% of hydraulic capacity or 75% of tipping capacity.

: Rating Over Front

: Rating Over Side or 360 degree