

DOOSAN

Construction Equipment

DX450LCA-7M DX450LC-7M

Powered by **Innovation**



Certain specification(s) are based on engineering calculations and are not actual measurements. Specification(s) are provided for comparison purposes only and are subject to change without notice. Specification(s) for your individual Doosan equipment will vary based on normal variations in design, manufacturing, operating conditions, and other factors. Pictures of Doosan units may show other than standard equipment.

DOOSAN

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DIPBE-00-2112

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ARRIVAL OF WILD HEROES

DX450LCA-7M and DX450LC-7M: Most Valuable Players in New Tough Generation, New Heroes In-Shape for Your Business

Time for the bolder work. In the distance, DX450LCA-7M and DX450LC-7M, captivates you with charisma from the very first encounter. Most valuable players and your reliable and only heroes. Irresistible risk-takers and rule-breakers. The genes of legendary predecessors with a flawless performance and unbridled enthusiasm. Whatever goal you need to reach, DX450LCA-7M and DX450LC-7M would come through with brilliant strength and daring new attitude.

DX450LCA-7M and DX450LC-7M are uncompromising heroes made for works without limits. With a controlled aggression beneath the bold proportion, the power remains poised. Restless seekers, gaining ground, pursuing innovations. Flexible transformers, ready to fit your site and your conditions. Dark knights of legendary breath of capabilities with features of intelligent technologies. With extra sensory perception, herculean power, they never miss the chance.

Always poised to make an entrance on scene whenever needed. DX450LCA-7M and DX450LC-7M, the most valuable players and absolute heroes ready to save your business.



**The statement of reliability, Doosan is here for you
with complete solution for your business.**

HERCULEAN POWER AND LEGENDARY PRODUCTIVITY

DX450LCA-7M and DX450LC-7M provide the best productivity in heavy quarry and mining site. Matchless workload provided by superior arm digging force and unparalleled bucketload. Powered by a reliable Doosan engine and Scania engine, both delivers peerless power and large swing torque, needed for high performance in heavy quarry and mining site.

UNCOMPROMISING QUALITY FOR TOUGH WORK

DX450LCA-7M and DX450LC-7M is featured by reinforced heavy-duty arm and boom with fortified undercarriage to withstand high-impact materials. Designed using reliable element and formed in optimal structural integrity. Ensuring long life and high uptime even in extreme job sites.

WE ARE BACK WITH NEW FEATURES

All the nice features of previous model
bodily succeeded, even nicer things to come.

DRY TYPE PRE-CLEANER

The installation of a rotor type pre-cleaner provides better filtering in dusty environments. Increased maintenance interval resulting in more uptime.

REINFORCED BOOM AND ARM

Reinforced castings and forged steel pivot points. Reinforced heavy-duty arm and boom with new optional boom floating system. To better protect the base of the arm, reinforced bars have been added and the arm center and end boss have been strengthened.

HEAVY-DUTY UNDERCARRIAGE

Heavy duty X-shaped undercarriage with integrated track spring and idler. Offered with durable box section track frame. The sprocket structure and tooth have been strengthened to prevent debris and increase durability.

DOOSANCONNECT® TELEMATICS SERVICE (OPTIONAL)

Offering 'preventive maintenance service' based on machine operating data. Providing an expert level consultation to dealers. Functioning as fleet management tool for the customers.

ADVANCED H+ CLASS BUCKET

Bucket robustness fortified by increased the area of the abrasion resistant plate. Applying heel saver and edge saver to significantly increase the durability of bucket.

WATER SEPARATOR

A filter-type high-performance water separator effectively filters moisture out in the fuel, reducing impurities and helping minimize engine issues.

ADDITIONAL WORKING LAMP (OPTIONAL)

New additional working lamp contributes to enhanced safety through improved illumination. 2ea and 6ea for each of the model.

AIR COMPRESSOR (OPTIONAL)

Easily lubricated, highly reliable and low maintenance air compressors are equipped.

ETP (ELECTRIC TRANSFER PUMP) (OPTIONAL)

Electric transfer pump enables to change speed of front movement depending on the hydraulic flow consumption of linked attachment. Upgraded operational ease guarantees linear and smooth movement of attachment.

ROPS CERTIFIED CABIN (OPTIONAL)

One of the most spacious cabs in the market, with low noise & vibration levels and excellent all-round visibility. Offered with fully adjustable suspension seat, air conditioning with climate control as standard.

SINGLE CATWALK (OPTIONAL)

The upper structure features a larger anti-slip surface for greater safety.

HEATING AND COOLING SEAT (OPTIONAL)

The optional, air-suspended, climatized driver's suspension seat provides pleasant seating conditions and a high level of comfort.



*Option spec info is included to the images contained in this material and may not be the same with the actual specs.

POWER LIKE NO OTHER



Real Partner With Unparalleled Engine Power and Differentiated Digging Force for Tough Application

Next generation of power and intelligence. With DX450LC-7M and DX450LCA-7M you can take even the heaviest work with ease. DX450LC-7M and DX450LCA-7M have matchless workload with about 10% more arm digging force and 20% more bucketload than class average. Doosan in-house engine and reliable Scania engine both deliver excellent force and high torque, while improved hydraulic system get the most out of the superior engine power. Above all, DX450LC-7M and DX450LCA-7M can even operate with attachments made for 50ton excavators with enough pump flow and lifting capacity. All features optimized for greater working range and fast digging speed needed for high performance in heavy quarry and mining site. More innovations delivers even more impressive performance. EPOS hydraulic system ensures the engine power to be exactly delivered. Electronically controlled hydraulic pump efficiently changes speed of front movement depending on the hydraulic flow consumption of attachment usage.

SWING DRIVE

Swing drive minimizes shock during rotation, while making increased torque available to ensure rapid cycles.

EPOS™ (ELECTRONIC POWER OPTIMIZING SYSTEM)

The smart EPOS™ provides a perfectly synchronized communication link between the engine's electronic control unit and the hydraulic system. A CAN (Controller Area Network) system enables a constant flow of information between the engine and hydraulic system, to ensure power is delivered exactly as needed.

DOOSAN ENGINE (DX12)

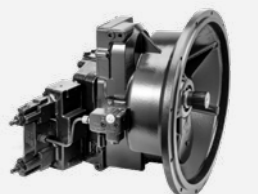
The DX12 is a whole new mechanical engine built on Doosan's continuously evolving engine technology. Greater engine outputs of 181kw and impressive torque enables to precisely deliver the power you need. Our many years of experience in engine design and production have resulted in both efficient and powerful engine. Delivering greater engine output through various system improvements.

SUPERIOR AND SUSTAINABLE POWER – T3

THE DX450LC-7M is powered by economic and powerful Scania DC13 engine. Advanced DC13 engine delivers a superior performance. High-pressure fuel injection and precise timing provide optimized fuel consumption. High power and wide torque range at low RPM, which can also reduce the strain on the clutch and transmission. Delivering performance which can be adapted to your various needs, for maximum productivity.

ELECTRONICALLY CONTROLLED HYDRAULIC PUMP

Electronically control the pump by generating virtual hydraulic flow, which effectively works on effectively reduce fuel consumption and high productivity. This control enables to change speed of front movement depending on the hydraulic flow consumption of linked attachment. Upgraded operational ease guarantees linear and smooth movement of attachment. Hydraulic flow can be controlled by the intuitive button or switch.



ON TOP FORM WHEN IT MATTERS

Designed for Longevity,
Built to Last on Top Forms



We are certain that DX450LC-7M and DX450LCA-7M are excavators that can satisfy virtually any demand placed on it by work in tough construction sites. Whether you're working on a quarry, in mass excavation or any other construction applications, DX450LCA-7M and DX450LC-7M will satisfy you on heavy-duty work you need to work on.

DX450LC-7M and DX450LCA-7M are developed with the most unwavering efforts to detail during its production. Increased lifespan of components by improved abrasion-resistance and additional protection. For superior durability, the undercarriage components are reinforced, ensuring long life and high uptime. Lasting technology and structural design completed by thorough analysis, enable Doosan's equipment to last under the harshest conditions. No matter whether you choose DX450LC-7M or DX450LCA-7M, embodies all the knowledge and experience gained by our engineers over the years.



HEAVY DUTY BOOM & ARM

The strong and durable structure includes a reinforced boom and arm made from high strength tensile steel for maximum reliability. Combined with thicker material, mechanical stress is equally distributed and both reliability and component life are increased. To better protect the base of the arm, reinforced bars have been added and the arm center.

INTEGRATED TRACK SPRING AND IDLER

The track spring and idler have been joined directly for even greater durability and improved maintenance convenience.

IMPROVED PILOT HOSES

Hoses material changed to rubber type, with a new fitting reducing the curvature. Improved pilot hoses facilitated the hydraulic flow and reduces internal pressure.

HEAVY DUTY UNDERCOVER

Advanced undercarriage with strengthen sprocket structure and tooth. Offering increased durability by providing additional protection to the underside of the machine in tough applications – preventing damage from rock and debris. Heavy duty X- shaped undercarriage ensures optimum structural integrity and durability. Cast steel heavy-duty sprockets guarantee the highest resistance and thick and solid plates providing maximum durability in harsh conditions.



EM BUSHING

The boom pivot is made with a highly lubricated metal to increase the lifespan and extend greasing intervals to 250 hours. cancellation and anti seizure property. Used polymer shim with hard metal disk for less abrasion.



ABRASION-RESISTANT ARM END DISK

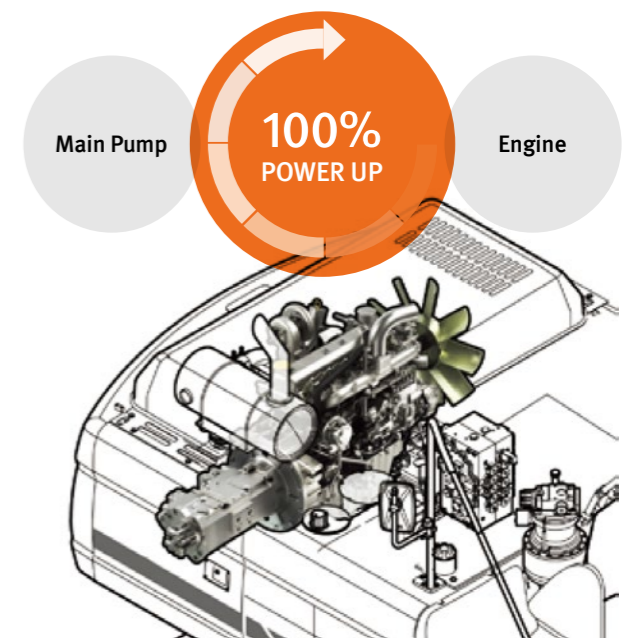
New disks have been adopted to increase wear resistance and service intervals.

CONDENSED FOR EFFICIENCY

Innovative Short Cuts to Greater Efficiency

DX450LCA-7M and DX450LCA-7M's optimized fuel consumption enabled by high-end technology reduces operating costs. Advanced systems combined with innovative integration, result in best of both worlds, increased performance and fuel efficiency.

Doosan electronic controlled pump – VBO(Virtual Bleed Off) system'- result of technological integration. Improved hydraulic system uses the engine power more effectively, maximizing pump output and offering more. A standard auto-idle feature which automatically puts the engine and pump into the standby mode when it detects a pause. Doosan's engine and pump matching technology, not only economical but also environmentally responsive with significantly reduced exhaust fumes. Do more with low fuel consumption and overall operating costs.



PUMP MATCHING TECHNOLOGY

Pump matching technology resolves problems as the low response time of the system and unnecessary fuel consumption. Matching the response time between pump and engine efficiently reduces unnecessary fuel consumption as well as reducing exhaust fumes.

AUTO IDLE

A standard auto-idle feature reduces engine rpm when the steering wheel or joystick isn't being used. The system automatically puts the engine and pump into the standby mode when it detects a pause during operation. The engine will be automatically switched off when the machine is inactive for a pre-set amount of time. This function helps reduce fuel consumption and noise.

RELIEF CUTOFF

DX450LCA-7M and DX450LCA-7M is equipped with a relief cutoff system. The system automatically detects excess hydraulic pressure in the cylinder and controls it by redirecting the hydraulic flow back to the main pump. Relief cutoff system distributes excessive pressure in hydraulic components to be maintained in the optimal state.

SPC (SMART POWER CONTROL) SYSTEM

SPC is a predictive powertrain control system, which automatically identifies working mode and adjusts engine RPM to supply proper pump torque. To Reduce the unnecessary waste of fuel consumption, it analyzes and manages gear steps and the set the speed. Raising the pump torque when productivity and power is needed. Lowering the pump torque down to reduce when fuel efficiency is needed. SPC relieves the driver's workload and contributes to a fuel-efficient working style.

HOME AWAY FROM HOME

You Are at the Center of Comfort and Control



The cabin of your vehicle must be your private and unimpeded place. DX450LC-7M and DX450LCA-7M created user friendly and restful, tranquil setting through functional simplicity and with design enabled technologies. Crafted from the fine materials, DX450LC-7M and DX450LCA-7M's interior brings together comfort, aesthetic qualities and up-to-date technology.

Enhanced personal space with climate control systems, and various convenient features. Designed to meet operational need thoroughly, the high-definition display control lever and other intuitive features brings absolute controllability in your fingertips. All elements provided to ensure the operator to work in safe and comfortable condition no matter the work site is. DX450LC-7M and DX450LCA-7M will ensure you that your work and comfort go hand in hand.



1. SMALL DETAILS ADD THE FEELING OF REFINEMENT

Heating and ventilation, air conditioning system upgraded for pleasant environment. USB charger and sunglasses case is also equipped for additional comfort. Rear sun visor is also equipped for UV protection.

2. SPACIOUS CABIN COMFORT

Refined interior with enhanced legroom and extendable storage space guarantees a serene ride to you. A more orderly interior equipped with high-class designed upholstery and thoroughly changed comfort accessories. This ensures operator to have a clear and uncluttered workplace at all times.

3. HEATING AND COOLING SEAT (OPTIONAL)

The optional, air-suspended, climatized driver's suspension seat provides pleasant seating conditions and a high level of comfort. Heating and cooling temperature range segmented in three stage to meet various customer needs.

4. ADDITIONAL WORKING LED LAMP (OPTIONAL)

New additional working lamp contributes to enhanced safety through improved illumination. 2ea and 6ea for each of the model.

5. CONTROL LEVER

Precise control of the equipment increases versatility, safety and facilitates tricky operations requiring great precision. Leveling operations and the movement of lifted load made easier and safer.

6. REAR VIEW CAMERA (OPTIONAL)

Optional side and rear-view camera keep watch in ways beyond operator's sight. Additional LED lighting system attached on each side for the clear identification.

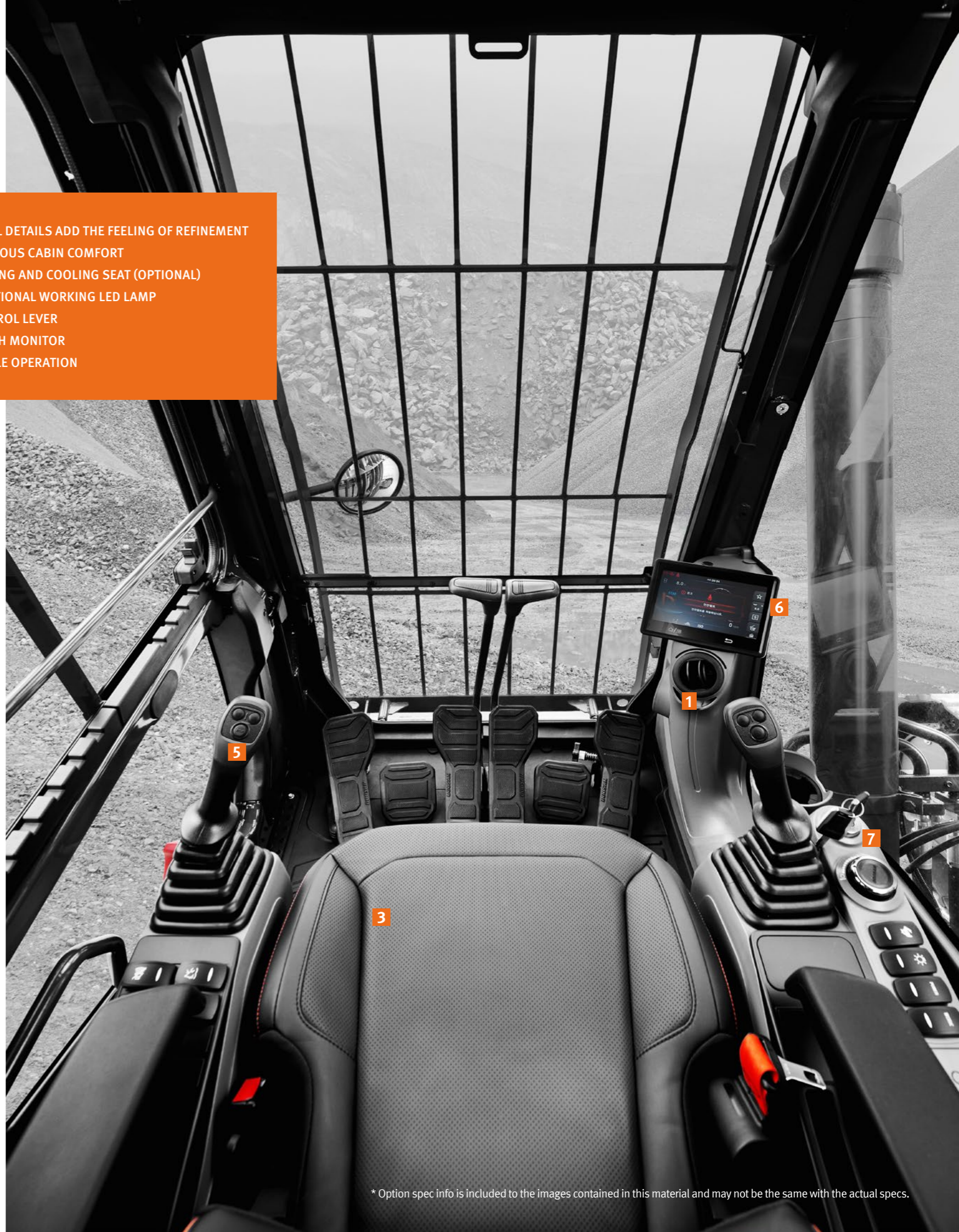
7. 8-INCH MONITOR

New, user-friendly LCD color monitor with full access to machine settings and maintenance data.

8. SIMPLE OPERATION

Precise control of the equipment increases versatility, safety and facilitates tricky operations requiring great precision. Leveling operations and the movement of lifted load made easier and safer. Joystick and switches integrated in control stand for precise operation.

- 1. SMALL DETAILS ADD THE FEELING OF REFINEMENT
- 2. SPACIOUS CABIN COMFORT
- 3. HEATING AND COOLING SEAT (OPTIONAL)
- 4. ADDITIONAL WORKING LED LAMP
- 5. CONTROL LEVER
- 6. 8-INCH MONITOR
- 7. SIMPLE OPERATION



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MOVE MORE WITH MINIMUM UPKEEP

Annoying Procedure Can't Slow Your Business Down

Achieve long lasting performance and uptime by smart and easy maintenance and servicing. In order to sustain maximum performance and productivity of your excavator, Doosan provides simple solution for maximum uptime. Flexible upkeep and repair options, as well as planned servicing, would extend the life of your excavator. Centralized grease inlets are designed for simple routine maintenance. You can receive and expert assistance are also readily available, DoosanCONNECT provides you the operational machine data in an hourly cycle and broad range of service to get the most productivity out of your equipment.





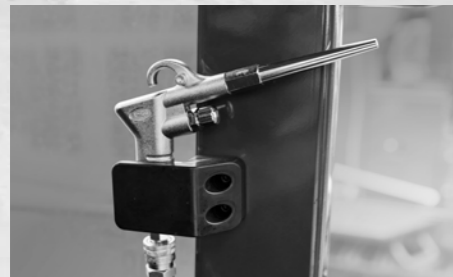
DOOSAN CONNECT

Allowing various parameters to be checked during maintenance procedure, such as pump pressure and engine rotation speed. Parameters can be stored and printed for subsequent analysis.



DRY TYPE PRE-CLEANER

The installation of a rotor type pre-cleaner provides better filtering in dusty environments. Increase maintenance interval resulting in more uptime.

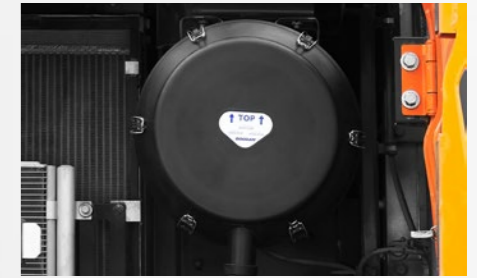


CONVENIENT FUSE BOX

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

AIR COMPRESSOR (OPTIONAL)

Easily lubricated, highly reliable and low maintenance air compressors are equipped.



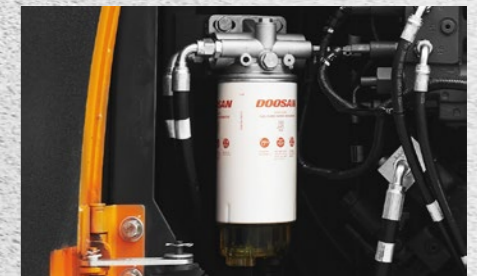
AIR CLEANER

Air cleaner of large capacity removes 99% of airborne particles, reducing the risk of engine contamination.



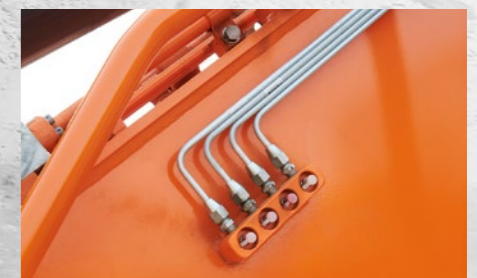
HYDRAULIC OIL RETURN FILTER

Protection of the hydraulic system has been made more effective by applying glass fiber filter technology to the main oil return filter. More than 99.5% of foreign particles are filtered out, significantly increasing oil change interval.



FUEL PRE-FILTER IN WATER SEPARATOR

Highly efficient water separator in fuel to prevent engine damage by removing moisture. Reducing the risk of external engine contamination and lengthen the engine's lifespan.



CENTRALIZED GREASE INLETS FOR EASY MAINTENANCE

The boom & arm grease inlets are grouped for easy access. Remote grease points make it easier to lubricate hard-to-reach pins on the lift arm and articulation system

DoosanCONNECT® Telematics Service (OPTIONAL)

TELECOMMUNICATIONS Data flow from machine to web



TELEMATICS SERVICE TERMINAL

Telematics Service terminal is installed to machine / connected to EPOS™



TELECOMMUNICATION

GPS, EPOS™ data is sent to designated server by GSM, Satellite telecommunication



DOOSAN TELEMATICS SERVICE WEB

Doosan, Dealer, Customer can easily monitor the GPS, EPOS™ data from Core Telematics Service web

TELEMATICS SERVICE BENEFITS Doosan and dealer support customers to improve work efficiency with timely and responsive services

CUSTOMER

- Improve work efficiency
- Timely and preventive service
- Improve operator's skills by comparing work pattern
- Manage fleet more effectively

DEALER

- Better service for customers
- Provide better quality of service
- Maintain machine value
- Better understanding of market needs

DOOSAN

- Responsive to customer's voice
- Utilize quality-related field data
- Apply customer's usage profile to developing new machine

FUNCTIONS(WEB/APP) Doosan Telematics Service provides various functions to support your great performance



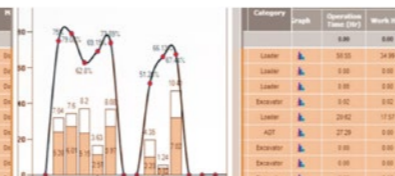
• GPS



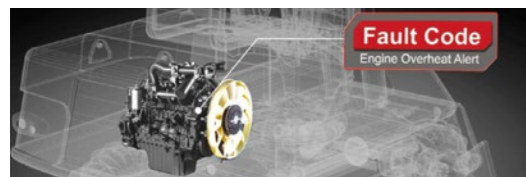
• Fuel information



• Preventive maintenance



• Operation hours



• Fault code/warning



• ADT Productivity



• Reports

FUNCTION	EXCAVATOR	WHEEL LOADER	ADT
GPS	All models	All models	All models
Operation hours	All models	All models	All models
Maintenance parts	All models	All models	All models
Fault code/ Warning	All models	All models	All models
Fuel information	All models	All models	All models
Dump capacity	N/A	N/A	All models

GLOBAL PARTS NETWORK

QUALITY-PROVEN MAIN COMPONENTS

Doosan provides fast and precise worldwide delivery of genuine Doosan parts through its global PDC (parts distribution center) network.

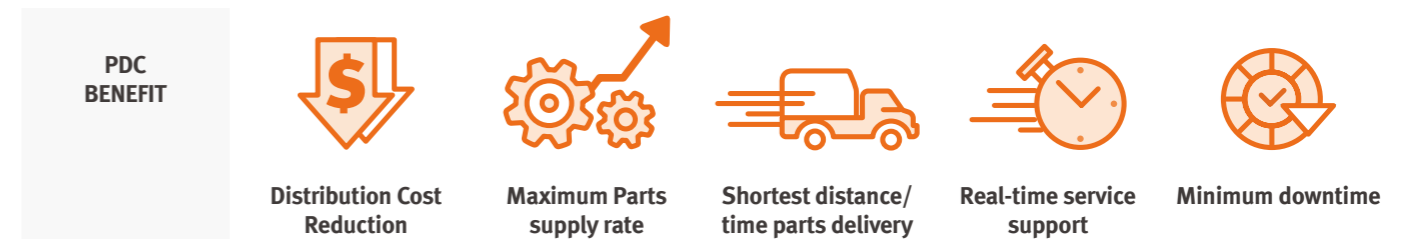


GLOBAL NETWORK

The global network of the GPDC (Global Parts Distribution Center) maximizes its supply rate by making sure that each center is stockpiled with all the critical parts required for businesses in its area. The network also minimizes the time and costs required for parts delivery by positioning PDCs close to major markets around the world. Doosan PDCs communicate with customers in their time zone, informing them that they are open for operation, and deliver parts to them as early as possible.

THE GLOBAL PARTS DISTRIBUTION CENTER NETWORK

PDCs had been set up as shown below, including Mother PDC in Ansan, Korea. The nine other PDCs include one in China (Yantai), Four in USA (Seattle and Atlanta, Suwanee, Miami), two in Europe (Germany and the UK), one in the Middle East (Dubai) and one in Asia (Singapore).



TECHNICAL SPECIFICATION (DX450LCA-7M)

ENGINE

Model
Doosan DX12 2 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 II.
Number of cylinders
6
Nominal flywheel power
GROSS POWER 257 kW (350PS, 344.5HP) @ 1,800 rpm (SAE J1995) NET POWER Standard 253 kW (392.9PS, 387HP) @ 1,800 rpm (SAE J1349)
Max torque
158.1 kgf.m @ 1,200 rpm
Piston displacement
11,051 cc (353 cu.in)
Bore & stroke
123 mm x 155 mm (4.8" x 6.1")
Starter
24 V / 7.0 kW
Batteries
2 X 12 V / 200 Ah
Air cleaner
Double element with auto dust evacuation.

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 shockfree operation and extend piston life.

Cylinders	Quantity	Bore x Rod diameter x stroke
Boom	2	170 x 115 x 1,485 mm
Arm	1	180 x 120 x 1,820 mm
Bucket	1	160 x 110 x 1,320 mm

ENVIRONMENT

Noise levels comply with environmental regulations (dynamic values).

Sound level guarantee
108 DB (A) (2000/14/EC)
Cab sound level
74 DB (A) (ISO 6396)

WEIGHT

Boom 6,700 mm (22'1") Arm 3,200 mm HD (10'5")

	Bucket	Shoe width	Operating weight	Ground pressure
Triple Grouser	2.14 R2H	600 mm	44,300 kg	0.81 kgf/cm ²
Double Grouser	2.42 R2H	600 mm	44,500 kg	0.81 kgf/cm ²
Triple Grouser	2.42 R2H	750 mm	45,200 kg	0.66 kgf/cm ²
Triple Grouser	2.42 R2H	800 mm	45,400 kg	0.62 kgf/cm ²
Triple Grouser	2.42 R2H	900 mm	45,900 kg	0.56 kgf/cm ²

HYDRAULIC SYSTEM

The heart of the system is the 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.
- 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 360 l/min
Pilot pump
Gear pump - max flow: 24 l/min
Maximum system pressure

Front
Normal mode : 324 kgf/cm²
Power mode : 370 kgf/cm²
Travel : 324 kgf/cm²
Swing : 270 kgf/cm²

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 9.1 rpm

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.

Number of rollers and track shoes per side
Upper rollers : 2 (Standard shoes) Lower rollers: 9 Shoes : 50 Total length of track : 5,200 mm (17' 1")

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.

Travel speed (fast/slow)
5.3 / 3.2 km/h (3.3 / 2.0 mph)
Maximum traction force
20,100 / 33,200 kgf (44,312 / 73,193 lbf)
Maximum grade
35 (70%)

BUCKET DIGGING FORCE

Bucket Type	Capacity (m ³)		DIGGING FORCE (NOM./PRESS. UP, TON)
	SAE		
GP	1.44 / 1.68 / 1.9 / 2.16		[SAE] 24.2 / 25.6 [ISO] 27.1 / 28.7
R2H	1.64 / 1.92 / 2.14 / 2.42 / 2.72		[SAE] 25.0 / 26.4 [ISO] 27.6 / 29.2
R2H+	2.14		
R2S	1.77 / 2.02		[SAE] 24.3 / 25.7 [ISO] 27.3 / 28.9
R2X	1.77		
ROCK	1.51		[SAE] 24.2 / 25.6 [ISO] 28.1 / 29.7

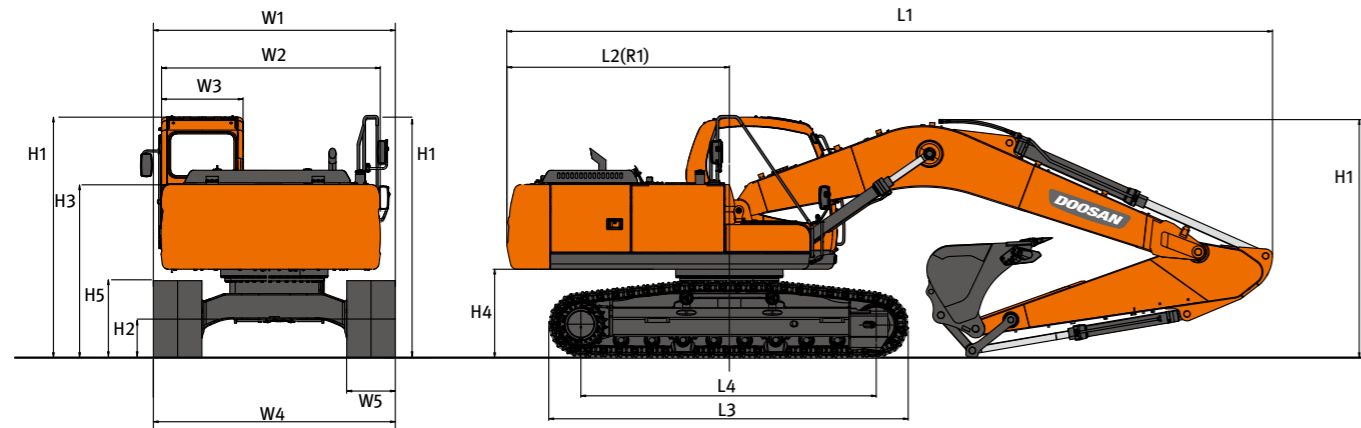
BUCKET

Bucket Type	DX450LCA-7M DX450LC-7M				Track	Standard Track							
					C/W (kg)	8,000							9,800
					SHOE (mm)	600 TG							
Capacity (m ³)	Width (mm)			Weight (kg)	6.7m HD Boom			6.7m Boom					
	SAE/PCSA	CECE	W/O Cutter		With Cutter	2.6m Arm	2.95m Arm	3.25m HD Arm	2.6m Arm	2.95m Arm	3.25m Arm	3.95m Arm	3.95m Arm
General Purpose	1.44	1.29	1,192	1,273	1,439	A	A	A	A	A	A	A	A
	1.68	1.50	1,348	1,429	1,541	A	A	A	A	A	A	A	A
	1.9	1.7	1,466	1,547	1,654	A	A	A	A	A	A	B	A
	2.16	1.92	1,664	1,745	1,782	A	A	B	A	A	B	C	A
H Class	1.64	1.49	1,256	1,290	1,601	A	A	A	A	A	A	A	A
	1.92	1.72	1,430	1,464	1,729	A	A	A	A	A	A	B	A
	2.14	1.91	1,566	1,600	1,860	A	A	B	A	A	B	C	A
	2.42	2.16	1,738	1,772	1,986	B	B	C	B	B	C	C	B
2.72	2.42	1,926	1,960	2,154	C	C	D	C	C	C	D	C	
H+ Class	2.14	1.92	1,566	1,600	1,960	A	A	B	A	A	B	C	B
S Class	1.77	1.59	1,364	1,364	2,128	A	A	A	A	A	A	B	A
	2.02	1.81	1,518	1,518	2,266	A	A	B	A	A	B	C	B
ROCK	1.51	1.31	1,497	-	1,643	A	A	A	A	A	A	A	A

Based on ISO 10567 and SAE J296, arm length without quick change clamp
A : Suitable for materials with density of 2,100kg/m³ (3,500 lb/yd³) or less
B : Suitable for materials with density of 1,800kg/m³ (3,000 lb/yd³) or less

C : Suitable for materials with density of 1,500 kg/m³ (2,500 lb/yd³) or less
D : Suitable for materials with density of 1,200 kg/m³ (2,000 lb/yd³) or less
X : Not recommended

DIMENSIONS (DX450LCA-7M, DX450LC-7M)

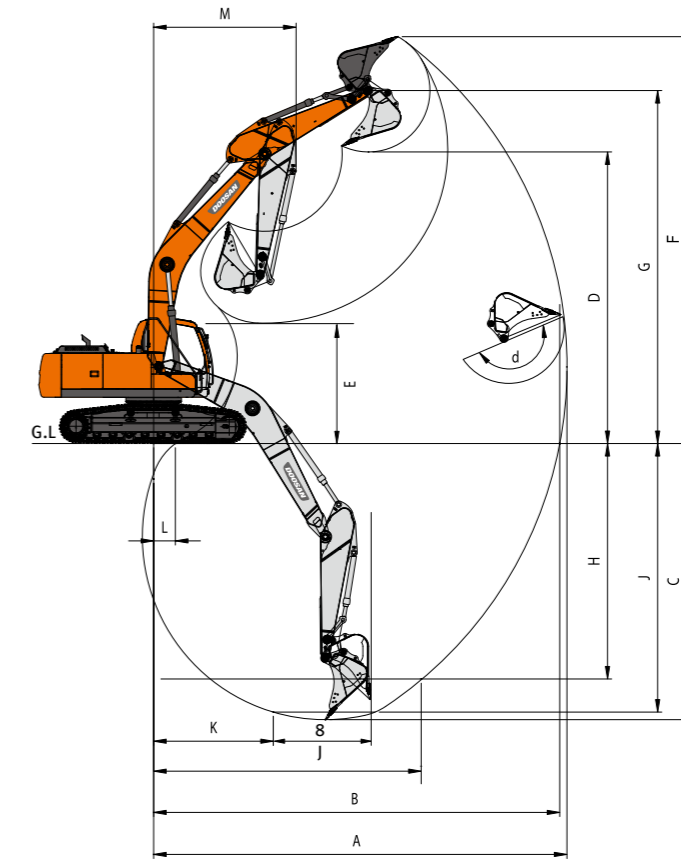


DIMENSIONS

Model		DX450LCA-7M/ DX450LC-7M						
Dimension		STD	OPT1	OPT2	OPT3			
Boom	mm	6,700	6,700	6,700 HD	6,700			
Arm	mm	3,250	2,950	2,600	3,950			
Bucket (PCSA)	m ³	2.14 R2H	2.42 R2H	2.42 R2H	1.64 R2H			
Undercarriage (Track+Grouser)	mm	LC 600 TG	LC 600 TG	LC 600 TG	LC 600 TG			
Overall	L1	Overall Length	mm	11,740	11,830	11,865	11,740	
	H1	Overall Height	Boom	mm	3,355	3,570	3,595	3,390
			Hose	mm	3,465	3,710	3,695	3,495
			Cabin	mm	3,210	3,210	3,210	3,210
	W1	Overall Width (SHIPPING)	mm	3,350	3,350	3,350	3,350	
L2 (R1)	Rear Swing Radius	mm	3,760	3,760	3,760	3,760		
H2	Ground Clearance*	mm	*585	*585	*585	*585		
Swing Body	W2	House Width	Frame only	mm	2,990	2,990	2,990	2,990
			w/Catwalk	mm	3,296	3,296	3,296	3,296
			w/Protector	mm	3,103	3,103	3,103	3,103
	W3	Cabin Width	mm	1,010	1,010	1,010	1,010	
	H3	Height Over Cover	mm	2,360	2,360	2,360	2,360	
H4	Counterweight Clearance*	mm	*1,270	*1,270	*1,270	*1,270		
Undercarriage	H5	Track Height*	mm	*1,070	*1,070	*1,070	*1,070	
	L3	Track Length	mm	*5,200	*5,200	*5,200	*5,200	
	L4	Tumbler Distance	mm	4,250	4,250	4,250	4,250	
	W4	Undercarriage Width	STD	mm	3,350	3,350	3,350	3,350
	W5	Shoe Width	mm	600	600	600	600	
	Grouser Height	mm	36	36	36	36		
CAB	-	Cabin Height	mm	853	853	853	853	

*: without grouser

WORKING RANGES (DX450LCA-7M, DX450LC-7M)



WORKING RANGE

BOOM LENGTH	mm	6,700				
ARM TYPE	mm	3,250	2,600	2,950	3,950	
BUCKET TYPE (SAE)	m ³	2.14 H R2H	2.42 R2H	2.14 R2H	1.64 R2H	
A	MAX. DIGGING REACH	mm	11,430	10,810	11,130	12,120
B	MAX. DIGGING REACH (GROUND)	mm	11,210	10,575	10,905	11,910
C	MAX. DIGGING DEPTH	mm	7,635	6,980	7,355	8,335
D	MAX. DUMPING HEIGHT	mm	7,810	7,485	7,630	8,200
E	MIN. DUMPING HEIGHT	mm	3,095	3,760	3,395	2,395
F	MAX. DIGGING HEIGHT	mm	10,615	10,265	10,420	11,045
G	MAX. BUCKET PIN HEIGHT	mm	9,485	9,160	9,310	9,875
H	MAX. VERTICAL WALL DEPTH	mm	3,075	2,430	2,755	3,815
I	MAX. RADIUS VERTICAL	mm	10,105	9,735	9,935	10,475
J	MAX. DIGGING DEPTH(8' LEVEL)	mm	7,455	6,755	7,155	8,185
K	MIN. RADIUS 8' LINE	mm	3,415	3,370	3,380	3,465
L	MIN. DIGGING REACH	mm	800	2,390	1,780	-205
M	MIN. SWING RADIUS	mm	4,475	4,495	4,505	4,555
D.	BUCKET ANGLE (DEG)	°	177	177	177	177

STANDARD & OPTION (DX450LCA-7M)

STANDARD EQUIPMENT

Boom & Arm

- 6.7 m Boom (Heavy duty)
- 3.2 m Arm (Heavy duty)

Hydraulic system

- Boom and arm flow regeneration
- Boom and arm holding valves(MCV)
- Swing anti-rebound valves
- Spare ports (Control valve)
- One-touch power boost

Cabin & Interior

- 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
- Cup holder
- Hot & Cool box
- LCD color monitor panel
- E/G RPM control dial
- AM/FM radio + MP3 (USB)
- Remote radio ON/OFF switch
- 12V,24V power socket
- Serial communication port for laptop PC interface
- Joystick lever with 3 switches

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

Others

- Double element air cleaner
- Additional water separator
- Dry type pre cleaner
- Fuel filter
- Dust screen for radiator/oil cooler
- Engine overheat prevention system
- Engine restart prevention system
- Self-diagnostic system
- 80 A Alternator (28 V, 50 amps)
- Electric horn
- Halogen working lights (frame mounted 1, boom mounted 2)
- Hydraulic track adjuster
- Track guards
- Greased and sealed track link
- Hydraulic oil tank air breather filter
- Long & Fixed track
- Counterweight (8.0 Ton)

OPTIONAL EQUIPMENT

Some of 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

Boom & Arm

- 2.6 m Arm
- 2.95 m Arm

Safety

- Boom and arm hose rupture protection valve
- Overload warning device
- FOGS (ISO 10262, FOGS standard)
- Alarm(Travel & Swing & QC)
- Rotating beacon
- LED lights
- Side & rear view camera
- Lock valve
- Seat belt warning
- Side protector & catwalk

Cabin & Interior

- Air suspension seat
- Rain Shield
- High seat Mount
- Breaker pedal
- Cabin front guard (Upper and lower guard)
- Steel roof cover
- Additional mirror
- DAB Audio
- ROPS Cabin
- Rear sun visor
- Artificial leather
- Heating & cooling seat

Others

- Piping option
 - Piping for Crusher
 - Piping for Breaker
 - Piping for Quick clamp
- Shoe (mm)
 - 600 DG / 700 TG / 800 TG / 850 TG / 900 TG / 600 DG
- Lower wiper
- Fuel filler pump
- Working Lights
 - 4-front / 2-rear on cabin
 - 2-front on cabin
- Hydraulic Oil
 - Cold weather (VG32)
 - Normal (VG46)
 - Tropical weather (VG68)
- Breaker filter
- Water separator with heater
- Heavy duty under cover
- Short & Fixed track
- Heavy duty & Fixed track
- Auto greasing unit
- Fuel filler pump
- Air compressor
- Counterweight(9.8 Ton for Demolition)
- Double or Full track guard
- Overload warning device

TECHNICAL SPECIFICATION (DX450LC-7M)

ENGINE

Model
SCANIA DC13 2 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 II.
Number of cylinders
6
Nominal flywheel power
GROSS POWER 257 kW (349.5PS, 344.4HP) @ 1,800 rpm (SAE J1995) NET POWER 251.5 kW (342.3PS, 337.3HP) @ 1,800 rpm (SAE J1349)
Max torque
169.6 kgf.m @ 1,400 rpm
Piston displacement
12,700 cc (775 cu.in)
Bore & stroke
130 mm x 160 mm (5.1" x 6.3")
Starter
24 V / 6.0 kW
Batteries
2 X 12 V / 200 Ah
Air cleaner
Double element with auto dust evacuation.

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 shockfree operation and extend piston life.

Cylinders	Quantity	Bore x Rod diameter x stroke
Boom	2	170 x 115 x 1,485 mm
Arm	1	180 x 120 x 1,820 mm
Bucket	1	160 x 110 x 1,320 mm

ENVIRONMENT

Noise levels comply with environmental regulations (dynamic values).

Sound level guarantee
108 DB (A) (2000/14/EC)
Cab sound level
74 DB (A) (ISO 6396)

WEIGHT

Boom 6,700 mm (22'1") Arm 3,200 mm HD (10'5")

	Bucket	Shoe width	Operating weight	Ground pressure
Triple Grouser	2.14 R2H	600 mm	44,400 kg	0.81 kgf/cm ²

HYDRAULIC SYSTEM

The heart of the system is the 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.
- 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 360 l/min
Pilot pump
Gear pump - max flow: 24 l/min
Maximum system pressure

Front
Normal mode : 330 kgf/cm²
Power mode : 350 kgf/cm²
Travel : 330 kgf/cm²
Swing : 280 kgf/cm²

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 9.1 rpm

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.

Number of rollers and track shoes per side
Upper rollers : 2 X 2 (Standard shoes) Lower rollers: 2 X 9 Shoes : 2 X 50 Total length of track : 5,200 mm (17' 1")

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.

Travel speed (fast/slow)
5.3 / 3.2 km/h (3.3 / 2.0 mph)
Maximum traction force
20,100 / 33,200 kgf (44,313 / 73,193 lbf)
Maximum grade
35 (70%)

BUCKET DIGGING FORCE

Bucket Type	Capacity (m ³)		DIGGING FORCE (NOM./PRESS. UP, TON)
	SAE		
GP	1.44 / 1.68 / 1.9 / 2.16		[SAE] 24.2 / 25.6 [ISO] 27.1 / 28.7
R2H	1.64 / 1.92 / 2.14 / 2.42 / 2.72		[SAE] 25.0 / 26.4 [ISO] 27.6 / 29.2
R2H+	2.14		
R2S	1.77 / 2.02		[SAE] 24.3 / 25.7 [ISO] 27.3 / 28.9
R2X	1.77		
ROCK	1.51		[SAE] 24.2 / 25.6 [ISO] 28.1 / 29.7

BUCKET

Bucket Type	DX450LCA-7M DX450LC-7M				Track	Standard Track								
					C/W (kg)	8,000								9,800
					SHOE (mm)	600 TG								
	Capacity (m ³)		Width (mm)		Weight (kg)	6.7m HD Boom			6.7m Boom					
SAE/PCSA	CECE	W/O Cutter	With Cutter	2.6m Arm		2.95m Arm	3.25m HD Arm	2.6m Arm	2.95m Arm	3.25m Arm	3.95m Arm	3.95m Arm		
General Purpose	1.44	1.29	1,192	1,273	1,439	A	A	A	A	A	A	A	A	
	1.68	1.50	1,348	1,429	1,541	A	A	A	A	A	A	A	A	
	1.9	1.7	1,466	1,547	1,654	A	A	A	A	A	A	B	A	
	2.16	1.92	1,664	1,745	1,782	A	A	B	A	A	B	C	A	
H Class	1.64	1.49	1,256	1,290	1,601	A	A	A	A	A	A	A	A	
	1.92	1.72	1,430	1,464	1,729	A	A	A	A	A	A	B	A	
	2.14	1.91	1,566	1,600	1,860	A	A	B	A	A	B	C	A	
	2.42	2.16	1,738	1,772	1,986	B	B	C	B	B	C	C	B	
	2.72	2.42	1,926	1,960	2,154	C	C	D	C	C	C	D	C	
H+ Class	2.14	1.92	1,566	1,600	1,960	A	A	B	A	A	B	C	B	
S Class	1.77	1.59	1,364	1,364	2,128	A	A	A	A	A	A	B	A	
	2.02	1.81	1,518	1,518	2,266	A	A	B	A	A	B	C	B	
ROCK	1.51	1.31	1,497	-	1,643	A	A	A	A	A	A	A	A	

Based on ISO 10567 and SAE J296, arm length without quick change clamp
A : Suitable for materials with density of 2,100kg/m³ (3,500 lb/yd³) or less
B : Suitable for materials with density of 1,800kg/m³ (3,000 lb/yd³) or less

C : Suitable for materials with density of 1,500 kg/m³ (2,500 lb/yd³) or less
D : Suitable for materials with density of 1,200 kg/m³ (2,000 lb/yd³) or less
X : Not recommended

STANDARD & OPTION (DX450LC-7M)

STANDARD EQUIPMENT

Boom & Arm

- 6.7 m Boom (Heavy duty)
- 3.2 m Arm (Heavy duty)

Hydraulic system

- Boom and arm flow regeneration
- Boom and arm holding valves(MCV)
- Swing anti-rebound valves
- Spare ports (Control valve)
- One-touch power boost

Cabin & Interior

- 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
- Cup holder
- Hot & Cool box
- LCD color monitor panel
- E/G RPM control dial
- AM/FM radio + MP3 (USB)
- Remote radio ON/OFF switch
- 12V,24V power socket
- Serial communication port for laptop PC interface
- Joystick lever with 3 switches

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

Others

- Double element air cleaner
- Additional water separator
- Dry type pre cleaner
- Fuel filter
- Dust screen for radiator/oil cooler
- Engine overheat prevention system
- Engine restart prevention system
- Self-diagnostic system
- 150 A Alternator (28 V, 50 amps)
- Electric horn
- Halogen working lights (frame mounted 1, boom mounted 2)
- Hydraulic track adjuster
- Track guards
- Greased and sealed track link
- Hydraulic oil tank air breather filter
- Long & Fixed track
- Counterweight (8.0 Ton)

OPTIONAL EQUIPMENT

Some of 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

Boom & Arm

- 2.6 m Arm
- 2.95 m Arm
- 6.7 m Boom
- 2.6 m Arm
- 2.95 m Arm
- 3.25 m Arm
- 3.95 m Arm

Safety

- Boom and arm hose rupture protection valve
- Overload warning device
- FOGS (ISO 10262, FOGS standard)
- Alarm (Travel & Swing & QC)
- Rotating beacon
- LED lights
- Side & Rear view camera
- Around View Monitor
- Lock valve
- Seat belt warning
- Side protector & catwalk
- Cabin front guard (Upper and lower guard)

Cabin & Interior

- Air suspension seat
- Rain Shield
- High seat Mount
- Breaker pedal
- Steel roof cover
- Additional mirror
- DAB Audio
- Rear sun visor
- Artificial leather
- Heating & cooling seat
- ROPS Cabin

Others

- Piping option
 - Piping for Crusher
 - Piping for Breaker
 - Piping for Quick clamp
- Shoe (mm)
 - 600 DG / 700 TG / 800 TG / 850 TG / 900 TG / 600 DG
- Lower wiper
- Fuel filler pump
- Working Lights
 - 4-front / 2-rear on cabin
 - 2-front on cabin
- Hydraulic Oil
 - Cold weather (VG32)
 - Normal (VG46)
 - Tropical weather (VG68)
- Breaker filter
- Water separator with heater
- Heavy duty under cover
- Short & Fixed track
- Heavy duty & Fixed track
- Auto greasing unit
- Electric transfer pump
- Air compressor
- Counterweight(9.8 Ton for Demolition)
- Double or Full track guard
- Microphone
- Oil washed precleaner