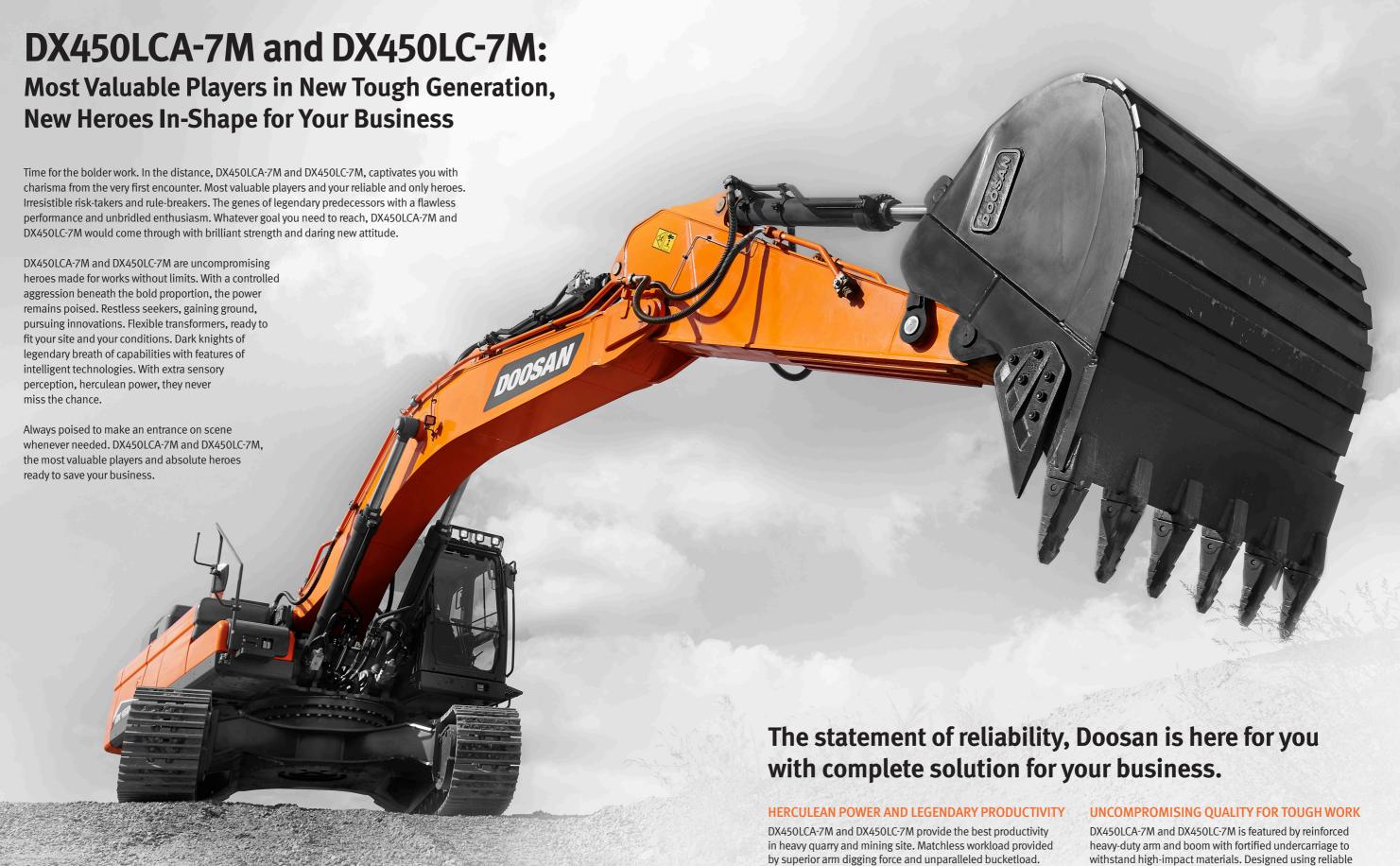


ARRIVAL OF WILD HEROES



Powered by a reliable Doosan engine and Scanian engine, both

delivers peerless power and large swing torque, needed for high

performance in heavy quarry and mining site.

element and formed in optimal structural integrity. Ensuring

long life and high uptime even in extreme job sites.

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.



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. DX 450 LEA

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 Scanian engine both deliver excellent force and 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.

POWER LIKE NO OTHER

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.

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.









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.



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.

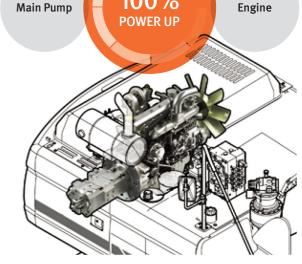
Doosan electronic controlled pump – VBO(Virtual Bleed Off) system'- result of technological integration. Improved hydraulic system uses the engine power more effectively, maximizing pump output and offering more. A standard auto-idle feature which automatically puts the engine and pump into the standby 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.













1. SMALL DETAILS ADD THE FEELING OF REFINEMENT

Heating and ventilation, air conditioning system upgraded for pleasant environment. USB charger and sunglass 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.



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.



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.

DOOSAN



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

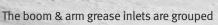
Highly efficient water separator in fuel to prevent engine damage by removing moisture. Reducing the risk of external engine contamination and lengthen the engine's lifespan.



CENTRALIZED GREASE INLETS FOR EASY MAINTENANCE

for easy access. Remote grease points make it easier to lubricate hard-to-reach pins on the lift arm and articulation system





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

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

Triple Grouser

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

74 DB (A) (ISO 6396)

2.42 R2H

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
- 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

45,900 kg

Total length of track: 5,200 mm (17' 1")

WEIGHT

Bucket Shoe width Operating weight Ground pressure Triple Grouser 2.14 R2H 600 mm 44,300 kg 0.81 kgf/cm² 2.42 R2H Double Grouser 600 mm 44,500 kg 0.81 kgf/cm² Triple Grouser 2.42 R2H 750 mm 45,200 kg 0.66 kgf/cm² Triple Grouser 2.42 R2H 800 mm 45,400 kg 0.62 kgf/cm²

900 mm

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%)

REFILL CAPACITIES

Fuel tank

640 L (169.1 US gal)

Cooling system (Radiator capacity)

56.5 L (14.9 US gal)

Engine oil

31 L (8.2 US gal)

Swing drive

8 L (2.1 US gal)

Final drive

(each =Travel Device = travel motor + travel reduction gear)

2 X 7 L (2 X 1.85 US gal)

Hydraulic tank

370 L (97.7 US gal)

BUCKET DIGGING FORCE

Bucket Type	Capacity (m³) SAE	DIGGING FORCE (NOM./PRESS. UP, TON) [SAE] 24.2 / 25.6 [ISO] 27.1 / 28.7		
GP	1.44 / 1.68 / 1.9 / 2.16			
R2H	1.64 / 1.92 / 2.14 / 2.42 / 2.72	[SAE] 25.0 / 26.4		
R2H+	2.14	[ISO] 27.6 / 29.2		
R2S	1.77 / 2.02	[SAE] 24.3 / 25.7		
R2X	1.77	[ISO] 27.3 / 28.9		
ROCK	1.51	[SAE] 24.2 / 25.6 [ISO] 28.1 / 29.7		

ARM DIGGING FORCE

	LENGTH (mm)	WEIGHT (kg)	DIGGING FORCE (NOM./PRESS. UP, TON)
STD. ARM	3,250	1,498	[SAE] 19.9 / 21.0, [ISO] 20.1 / 21.2
HD ARM	3,250	1,646	[SAE] 19.9 / 21.0, [ISO] 20.1 / 21.2
SHORT (2.6m)	2,600	1,415	[SAE] 24.6 / 26.0, [ISO] 24.9 / 26.3
SHORT (2.9m)	2,950	1,469	[SAE] 22.1 / 23.3, [ISO] 22.3 / 23.6
LONG (3.95m)	3,950	1,749	[SAE] 17.3 / 18.2, [ISO] 17.4 / 18.4

BUCKET

DX450LCA-7M DX450LC-7M					Track	ack Standard Track							
					C/W (kg)	8,000						9,800	
	DA450EC / M					600 TG							
Developt Towns	Capacity (m³)		Width (mm)			6.7m HD Boom 6.7m Boom				n			
Bucket Type	SAE/PCSA	CECE	W/O Cutter	With Cutter	Weight (kg)	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
	1.44	1.29	1,192	1,273	1,439	Α	Α	Α	Α	Α	А	Α	Α
General	1.68	1.50	1,348	1,429	1,541	Α	Α	Α	Α	Α	А	Α	А
Purpose	1.9	1.7	1,466	1,547	1,654	Α	Α	Α	Α	Α	А	В	A
	2.16	1.92	1,664	1,745	1,782	Α	Α	В	Α	Α	В	С	А
	1.64	1.49	1,256	1,290	1,601	Α	Α	Α	Α	Α	Α	Α	А
	1.92	1.72	1,430	1,464	1,729	Α	Α	Α	Α	Α	Α	В	А
H Class	2.14	1.91	1,566	1,600	1,860	Α	Α	В	Α	Α	В	С	Α
	2.42	2.16	1,738	1,772	1,986	В	В	С	В	В	С	С	В
	2.72	2.42	1,926	1,960	2,154	С	С	D	C	С	С	D	С
H+ Class	2.14	1.92	1,566	1,600	1,960	Α	Α	В	Α	Α	В	С	В
S Class	1.77	1.59	1,364	1,364	2,128	Α	Α	Α	Α	Α	А	В	А
3 CldSS	2.02	1.81	1,518	1,518	2,266	Α	Α	В	Α	Α	В	С	В
ROCK	1.51	1.31	1,497	-	1,643	Α	Α	А	Α	Α	А	Α	А

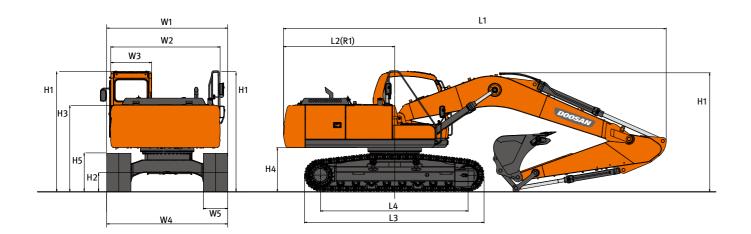
Based on ISO 10567 and SAF 1296, arm length without quick change clamp A: Suitable for materials with density of 2.100kg/m³ (3.500 lb/vd³) or less B: Suitable for materials with density of 1,800kg/m³ (3,000 lb/yd³) or less

- 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/m 3 (2,000 lb/yd 3) or less
- X: Not recommended

24

0.56 kgf/cm²

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

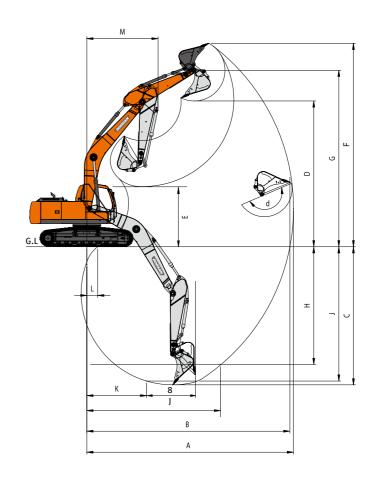


DIMENSIONS

Model					DX450LCA-7M/ DX450LC-7M					
Dimension					STD	OPT1	OPT2	ОРТ3		
Boom					6,700	6,700	6,700 HD	6,700		
Arm					3,250	2,950	2,600	3,950		
		Bucket (PCSA)		m³	2.14 R2H	2.42 R2H	2.42 R2H	1.64 R2H		
Undercarriage (Track+Grouser)					LC 600 TG	LC 600 TG	LC 600 TG	LC 600 TG		
	L1	L1 Overall Length			11,740	11,830	11,865	11,740		
			Boom	mm	3,355	3,570	3,595	3,390		
_	H1	Overall Height	Hose	mm	3,465	3,710	3,695	3,495		
Overall			Cabin	mm	3,210	3,210	3,210	3,210		
0	W1	Overall Width (SHIPPING)		mm	3,350	3,350	3,350	3,350		
	L2 (R1)	Rear Swir	mm	3,760	3,760	3,760	3,760			
	H2	Ground C	mm	*585	*585	*585	*585			
		House Width	Frame only	mm	2,990	2,990	2,990	2,990		
<u>></u>	W2		w/Catwalk	mm	3,296	3,296	3,296	3,296		
Вод			w/Protector	mm	3,103	3,103	3,103	3,103		
Swing Body	W3	Cabin Width		mm	1,010	1,010	1,010	1,010		
Ś	Н3	Height Over Cover		mm	2,360	2,360	2,360	2,360		
	H4	Counterweight Clearance*		mm	*1,270	*1,270	*1,270	*1,270		
	H5	Track Height*		mm	*1,070	*1,070	*1,070	*1,070		
ge	L3	Track Length		mm	*5,200	*5,200	*5,200	*5,200		
Undercarriage	L4	Tumbler Distance		mm	4,250	4,250	4,250	4,250		
derc	W4	Undercarriage Width	STD	mm	3,350	3,350	3,350	3,350		
์ ว	W5	Shoe Width		mm	600	600	600	600		
		Grouse	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	3,250 2,600 2,950 3,950						
BUCKET TYPE (SAE)	m³	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)	0	177	177	177	177				

26