

DOOSAN

Construction Equipment

DX140AF

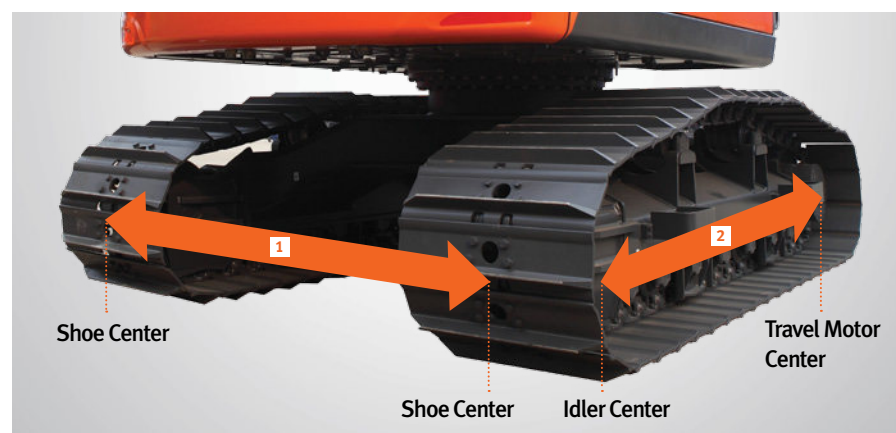
Engine Power	74 kW (100PS) @1,850 rpm
Operational Weight	16,900 kg (37,258 lb)
Bucket Capacity (SAE)	0.51 ~ 0.53 m ³ (0.67 ~ 0.69 yd ³)



IT'S SIMPLE AND TOUGH, RIGHT FOR YOUR FORESTRY WORK

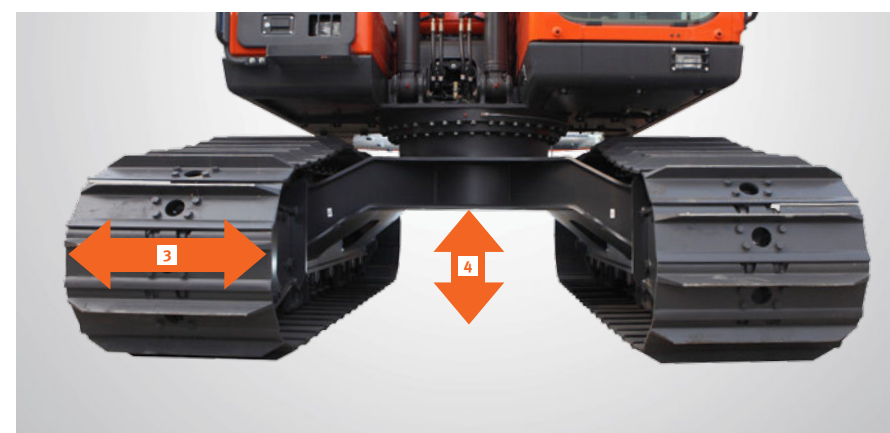
DX140AF

The Doosan DX140AF features a reinforced lower body to protect it against the harsh, damp forestry work environment and a powerful and simple large 6-liter mechanical engine to maximize work efficiency, making it the optimal excavator for forestry work in any environment including plains and mountains.



1 Track Gauge
2,200mm

2 Tumbler length
3,180mm



3 Shoe width
**600/800/
900/960mm**

4 Ground Clearance
592mm



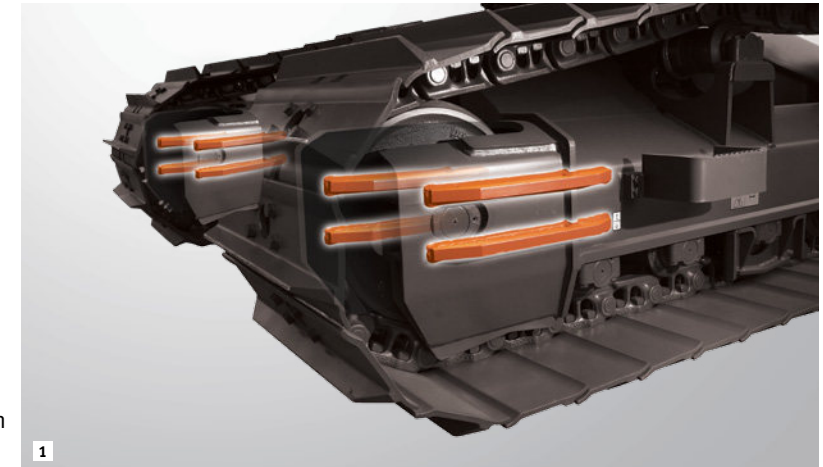
REINFORCED UNDERCARRIAGE FOR BETTER DURABILITY

DX140AF



1 STRENGTHENED IDLER BRACKET

The idler bracket has been fitted with a reinforced bar to further protect the main components from external impacts.



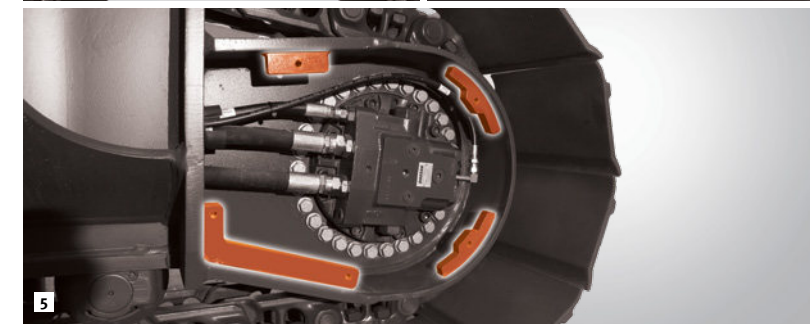
2



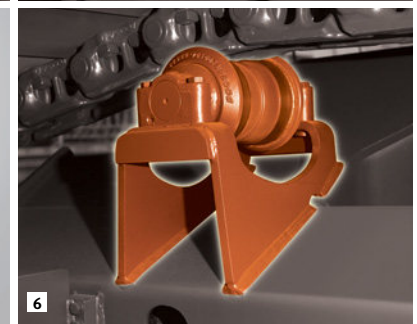
3



4



5



6

2 HEAVY DUTY UNDERCOVER

The reinforced forestry undercover, pressed in an "x" shape, is specially designed to minimize external stress and to protect the excavator's main components from diverse external impacts resulting from rough surface environments.

3 CHANGED BOLT PROTECTOR

All bolts are protected by bolt protectors.

4 A DEDICATED TRACK GUARD FOR FORESTRY

Installed on each side (2 per side) to protect the tracks, enabling more stable work.

5 SECURED TRAVEL MOTOR BY FORESTRY-DEDICATED T/M MOUNT

The travel motor, protected by a reinforced forestry-dedicated travel motor mount to prevent it from being damaged by the typically harsh environment of logging sites.

6 REINFORCED UPPER ROLLER AND MOUNT

Redesigned and strengthened mount to withstand the DX140AF's powerful traction, stably fixes the upper roller inside and outside to ensure reliable operation.



LARGER COMPONENTS FOR POWERFUL PERFORMANCE

DX140AF



DOOSAN ENGINE (DB58TIS) FOR SUPERIOR PERFORMANCE IN HARSH FORESTRY ENVIRONMENTS

Doosan products are equipped with the DB58TIS, the company's in-house engine, to deliver superior performance. Doosan's engine is perfectly harmonized with the hydraulic system to deliver superior power.

In particular, the DX140AF is equipped with a 22-ton class engine that is superior to the existing 14-ton class machine engines, providing all the power needed to perform diverse tasks reliably and quickly in harsh forestry environments.

The DB58TIS is a simple yet powerful mechanical engine that minimizes machine downtime as it is easy to manage and repair even at forestry sites situated far from any maintenance facility.



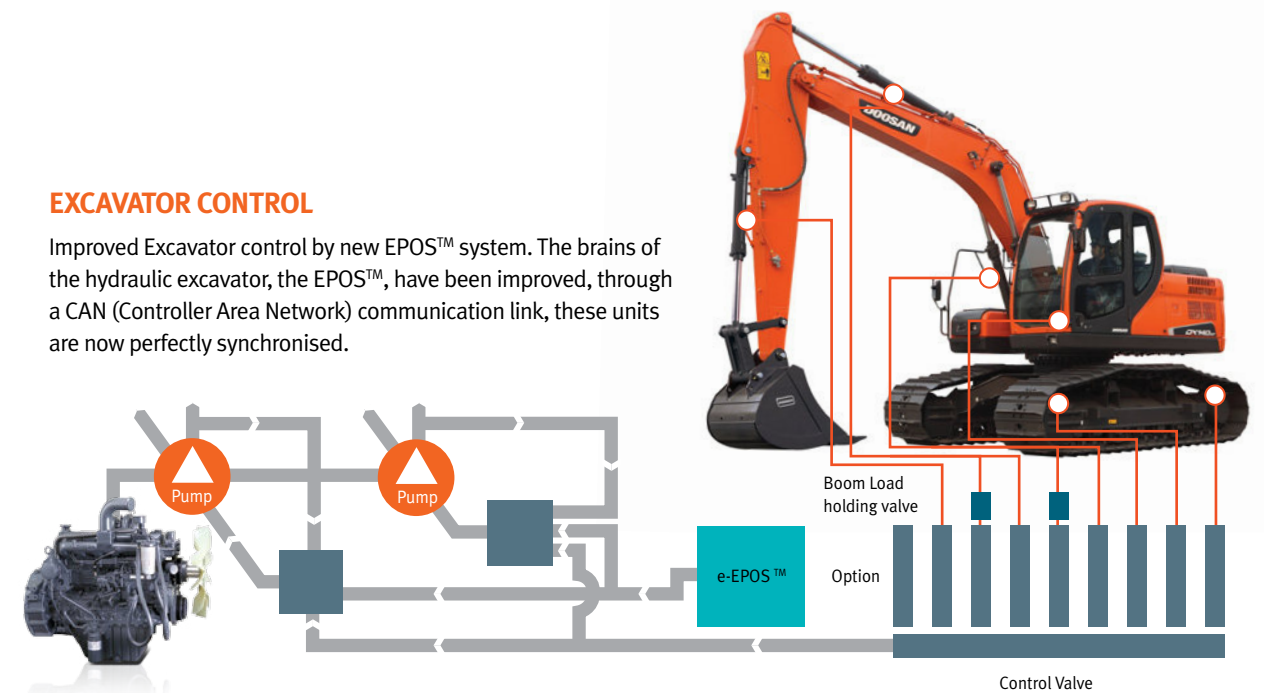
LARGER TRAVEL DEVICE FOR INCREASED TRACTION FORCE

Equipped with a higher-class travel engine than the conventional 14-ton excavator, the travel device offers superior traction and is perfectly matched to the mechanical 6-liter Doosan engine (DB58TIS), providing reliable traction in any environment including wetlands, rough terrain and slopes.



EXCAVATOR CONTROL

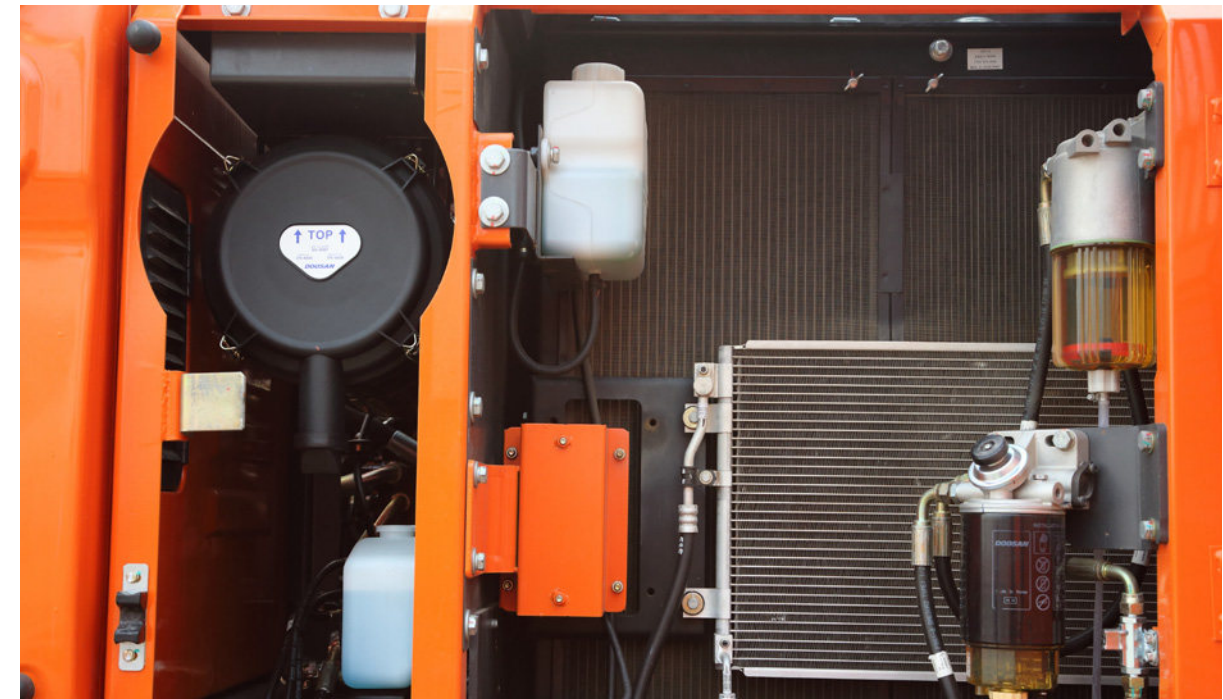
Improved Excavator control by new EPOS™ system. The brains of the hydraulic excavator, the EPOS™, have been improved, through a CAN (Controller Area Network) communication link, these units are now perfectly synchronised.





EASY MAINTENANCE

DX140AF



CENTRALIZED PARTS FOR EASY MAINTENANCE

The DX140AF is designed to improve productivity by minimizing on-site maintenance. The radiators and filters are well arranged on one side for easy maintenance. The upper and side doors enable easier access to the main parts for convenient maintenance.



3-STAGE FUEL FILTRATION SYSTEM, PERFECT MATCH FOR YOUR FUEL QUALITY

The DX140AF is fitted with a 3-stage fuel filtration system to prevent engine system damages caused by the use of low-quality fuel containing contaminants, thereby reducing engine failure and increasing uptime.

- 1 Water Separator with large capacity storage
- 2 Pre Fuel Filter with water separator
- 3 Main Fuel Filter

TECHNICAL SPECIFICATIONS

ENGINE

Model
DOOSAN DB58-LBE00
Type
4 - cycle, turbo charged, air to water intercooler
Number of cylinders
6
RATED HORSE POWER
74 kW (100 PS) @ 1,850 rpm
Max torque
44 kgf.m @ 1,400 rpm
Piston displacement
5,785 cc
Bore & stroke
∅ 102 mm X 118 mm
STARTING MOTOR
24 V X 4.5 kW
Batteries
12 V X 2 / 100 AH
Air cleaner
Double element

HYDRAULIC CYLINDERS

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

Cylinders	Quantity	Bore x Rod diameter x stroke
Boom	2	110 X 75 X 1,085 mm
Arm	1	115 X 80 X 1,099 mm
Bucket	1	100 X 70 X 900 mm

WEIGHT

Triple grouser		
Shoe width	GROUND PRESSURE	MACHINE WEIGHT
(OPT) 960 SG mm	0.26 kgf/cm²	17,500 kg
(OPT) 900 SG mm	0.28 kgf/cm²	17,200 kg
(STD) 800 SG mm	0.31 kgf/cm²	16,900 kg
(OPT) 800 TG mm	0.31 kgf/cm²	17,000 kg
(OPT) 600 TG mm	0.31 kgf/cm²	16,400 kg

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 new EPOS™ is connected to the engine electronic control via a data transfer link to harmonize the operation of the engine and hydraulics.

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

Main pumps
Tandem, Axial Piston
Max flow : 2 X 114 l/min
Displacement : 61.6 X 2 cc/rev
Pilot pump
Gear pump - max flow : 26.4 l/min
Pilot pump : 15 cc/rev
Relief valve pressure : 40 kgf/cm²
Main relief Pressure
Normal Working : 350 kgf/cm²
Pressure-Up, Travel : 350 kgf/cm²

SWING MECHANISM

High-torque, axial piston motor with planetary reduction gear bathed in oil. Swing circle is singlerow, shear type ball bearing with induction-hardened internal gear. Internal gear and pinion gear immersed in lubricant.

- Max. Swing speed** - 10.1 rpm (EFF. = 100 %)
Max. Swing Torque - 3,655 kgf.m (EFF. = 77 %)

UNDERCARRIAGE

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

- Upper rollers(Standard shoe)** - 1
Lower rollers - 7
Track shoes - 44
Overall track length - 3,180 mm

DRIVE

Each track is driven by an independent, high-torque, axial piston motor through planetary reduction gear. Two levers or foot pedal control provide smooth travel or counter-rotation upon demand.

- Travel speed (High / low)** - 4.3 / 2.5 km/h (EFF.=97/95%)
Maximum traction force - 16.4 ton (EFF.=86%)
Gradeability - 70%

REFILL CAPACITIES

- Fuel tank** - 267 l
Cooling System - 20 l
Engine Oil - 27 l
Swing Drive - 3 l
Travel Device (each) - 2.2 l
Hydraulic tank (FULL) - 267 l

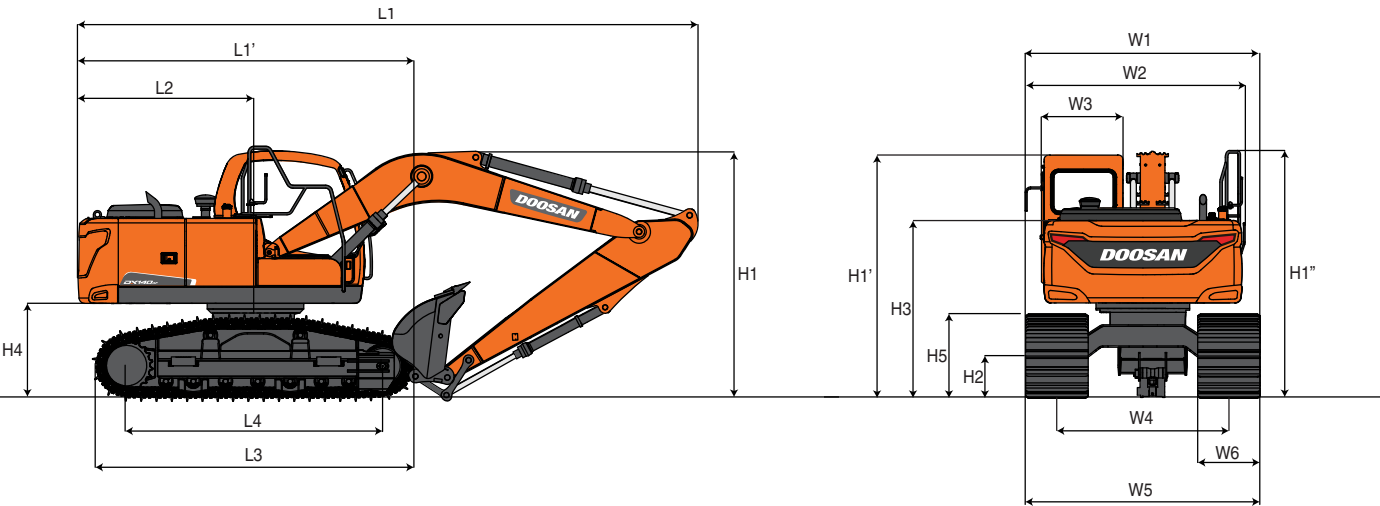
BUCKET

	Capacity(m³)		Width (mm)		Digging Force (NOM./PRESS.UP, ton)
	SAE	CECE	W/O Cutter	With Cutter	
OPT	0.58	0.51	1,023	1,107.8	SAE 9.0/9.6 ISO10.3/10.9
STD	0.51	0.46	903.2	990.9	SAE 9.0/9.6 ISO10.3/10.9

DIGGING FORCES (ISO)

	Length	Weight	Digging force (Nom. / Press. up, ton)
STD. Arm	3,000 mm	405.7 kgf	SAE 5.9 / 6.3 ISO 6.1 / 6.5

DIMENSIONS

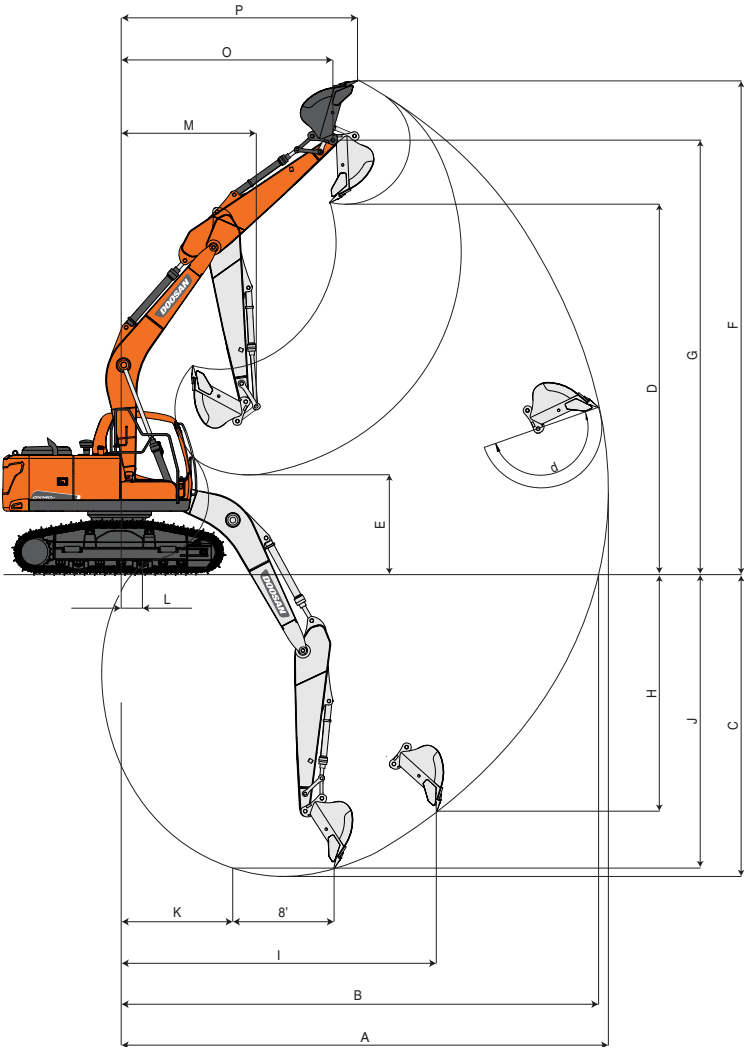


STANDARD

Boom		(mm)		4,600
Arm		(mm)		3,000
Bucket (SAE)		(m³)		0.51
Undercarriage (Track+Grouser)		(mm)		HT+SG
Overall Length		(mm)	L1	7,715
Overall Height	Boom	(mm)	H1	3,020
	Hose	(mm)		3,200
	Cabin	(mm)		3,100
	Hand/Guard Rail	(mm)		3,145
Overall Width		(mm)	W1	3,000
Rear Swing Radius		(mm)	R1	2,205
Ground Clearance*		(mm)	H2	592
House Width		(mm)	W2	2,540
Cabin Width		(mm)	W3	1,010
Height Over Cover		(mm)	H3	2,258
Counterweight Clearance*		(mm)	H4	1,153
Track Height*		(mm)	H5	953
Track Length		(mm)	L3	4,045
Tumbler Distance		(mm)	L4	3,180
Track Gauge		(mm)	W4	2,200
Undercarriage Width	STD	(mm)	W5	3,000
Shoe Width		(mm)	W6	800
Grouser Height		(mm)		58

* without Grouser - Grouser height : 58mm (for SG)

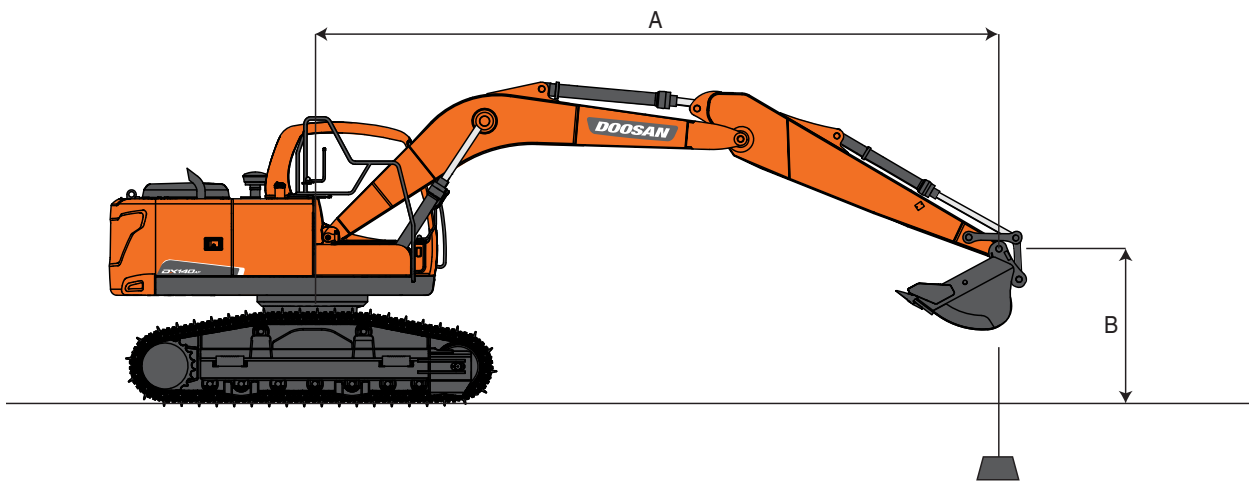
WORKING RANGES



WORKING RANGES













Boom Type (One Piece)	(mm)		4,600
Arm Type	(mm)		3,000
Bucket Type (SAE)	(m³)		0.51
MAX. digging reach	(mm)	A	8,650.6
Max. digging reach (Ground)	(mm)	B	8,460.8
MAX. digging depth	(mm)	C	5,814.2
Max. loading height	(mm)	D	6,749.8
Min. loading height	(mm)	E	2,055.9
Max. digging height	(mm)	F	9,128.6
Max. bucket pin height	(mm)	G	7,959
Max. vertical wall depth	(mm)	H	1,617
Max. radius vertical	(mm)	I	7,915.9
Max. depth to 8'line	(mm)	J	5,811
Min. radius 8'line	(mm)	K	766
Min. digging reach	(mm)	L	559
Min.swing radius	(mm)	M	2,203
Reach to bucket pin center at maximum height	(mm)	O	4,117
Reach at maximum height	(mm)	P	4
Bucket angle	(deg)	d	179

LIFTING CAPACITY





STANDARD

Metric
Boom : 4.6m (15' 1") Arm : 3.0m (8' 2") Bucket : SAE0.51 m³ (CECE 0.46 m³) heaped Shoe : 800mm (24") Counter Weight : 2,200 kg (4,850 lb) Unit : 1,000 kg (1,000 lb) Unit : 1,000kg

A(m) B(m)	2		3		4		5		6		Max. Reach		
													A(m)
7							2.22	2.22			2.06 *	2.06 *	@ 5.08
6							2.96 *	2.96 *			1.89 *	1.89 *	@ 6.00
5							3.06 *	3.06	2.8 *	2.8	1.81 *	1.81 *	@6.63
4					3.45*	3.45*	3.41 *	3.41	3.27 *	3.27	1.80 *	1.80 *	@7.06
3			5.25*	5.25 *	4.4*	4.4	3.95 *	3.95	3.7	3.21	1.82*	1.82*	@7.32
2			7.47 *	7.47	5.52 *	5.52	4.59	4.09	4.07	3.12	1.89 *	1.89 *	@7.44
1			9.24 *	8.55	6.54	5.47	5.20	3.95	4.4	3.04	2.01 *	2.01 *	@7.42
0 (GROUND)			7.91 *	7.91	7.26	5.31	5.68	3.85	4.33	2.98	2.20 *	2.20 *	@7.27
-1	5.12	5.12	8.86 *	8.21	7.62	5.22	5.62	3.79	4.28	2.94	2.50 *	2.41	@6.96
-2	6.91 *	6.91 *	10.26 *	8.22	7.61	5.19	5.59	3.77	4.28	2.93	2.98 *	2.65	@6.48
-3	9.23 *	9.23 *	9.56*	8.29	7.2	5.23	5.62	3.79			3.90 *	3.12	@5.79
-4	11.52 *	11.52 *	8.19 *	8.19	6.17 *	5.33					4.86 *	4.13	@4.79

1. * RATED LOADS ARE BASED ON HYDRAULIC CAPACITY.
2. RATED LOADS DO NOT EXCEED 87% OF HYD. CAPACITY OR 75% OF TIPPING CAPACITY.

 : Rating Over Front
 : Rating Over Side or 360 Degree

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

Arm <ul style="list-style-type: none">3.0m Forestry Arm with Bucket Cylinder3.0m Forestry Arm without Bucket Cylinder	Rotating Pipng (PERO) <ul style="list-style-type: none">Rotating Pipng (PERO)
Bucket <ul style="list-style-type: none">0.51m³ bucket0.58m³ bucketOnly Dummy Link No Bucket	Quick Coupler Pipng <ul style="list-style-type: none">Quick Coupler Pipng
Track Shoe <ul style="list-style-type: none">600mm Shoe (Triple Grouser)800mm Shoe (Triple Grouser)800mm Shoe (Single Grouser)900mm Shoe (Single Grouser)960mm Shoe (Single Grouser)	Alarm <ul style="list-style-type: none">Alarm for Travel and SwingAlarm for Travel Only
One-Way Pipng <ul style="list-style-type: none">One Way Pipng	Additional Working Lamp <ul style="list-style-type: none">2 Additional Working Lamp (HAL)Non Additional Working Lamp
One & Two Way Front Pipng <ul style="list-style-type: none">One & Way Front Pipng	Camera <ul style="list-style-type: none">Rear View Camera
Two - Way Pipng (PE3C) <ul style="list-style-type: none">Two Way Pipng (PE3C)	Rear Lamp <ul style="list-style-type: none">Rear Lamp
	Rotating Beacom <ul style="list-style-type: none">Telescopic BeaconRotating Beacom
	Cabin Roof Cover <ul style="list-style-type: none">Plastic Roof CoverSteel Roof Cover

Doosan is

Since 1896, Doosan, the oldest company in Korea, has evolved with its people. The company grew up rapidly for last 10 years with reputation. For human-oriented vision, Doosan has been building constructions, energy, machines, infra structures globally. As a global leader of infra structure, Doosan continues its vision to make human-oriented future.

First in Korea, Doosan self-developed excavators in 1985 and continued building versatile construction machines including excavators, wheel loaders, articulated dump trucks to execute its human-oriented philosophy. Doosan became a global leader of heavy construction machine industry by achieving global sales line, producing line, and distribution line. Along with large production bases in Korea, China, USA, Belgium, Czech, Brazil, Doosan has 1400 dealer networks and Doosan is providing reliable products and trusted solutions for your stable business at no risk.



Doosan Infracore Korea Office (HQ)
27F, Doosan Tower, 275, Jangchungdan-ro,
Jung-gu, Seoul, Korea(04563)
Tel : 82 2 3398 8114

www.doosaninfracore.com/ce/