

# **Amphibious Excavator**

DOOSAN

DX80r am / DX140 am / DX225 am / DX260 am / DX300 am / DX340 am

# **DOOSAN AMPHIBIOUS**

Doosan Amphibious is designed to enhance mobility in marshes, swampy area and soft terrain with floating pontoons. Doosan also offer Super Long Reach front kit for more deep and far digging. Using AU kit and SLR kit together, it maximizes versatility of Doosan excavator.



# **DOOSAN AMPHIBIOUS USING THE 6 KINDS OF GOOD REASONS**



### **ONE-STOP SHOP**

maintenance cost.

One place for complete solutions : (carrier + application + parts + service)

SAN

#### ENGINEERING APPROVED Optimized for Wheel loader equipment high efficiency and performance, resulting in lower running and

# ● SERVICE

Broad coverage via the Doosan service network, fully supported by Wheel loader product specialists.



## QUALITY

Products manufactured to highest standards.



# WARRANTY

Avoid compatibility issues and operating differences from using Non-approved application.



**EASY** PLUG & PLAY READINESS Easy to install and operate.

# **CUSTOMIZED FEATURES**

Doosan Amphibious has proven itself and performed exceedingly well in the followings applications :

- Dredging
- Landscaping
- Erosion control and prevention
- · Deepening of canal and river deltas
- Maintenance and cleaning of rivers, lakes, shorelines, ponds
- Swamps and soft terrain construction.

# **MULTI-SYNCHRONOUS DRIVE SYSTEM AMPHIBIOUS OPTION**

- · Proprietary multi-synchronous drive motor design.
- $\cdot$  Motors are mounted on front and rear of each pontoon.
- · It offers superior tracking power as compared to a single motor design.
- A similar concept that is applied to a full time 4x4 gear system of a land vehicle



# AMPHIBIOUS MODULAR DESIGN

- · Designed to be easily transported by low bed trailer.
- Amphibious modules and attachments are designed to be able to fit into 40ft container.
- Both the assembly and disassembly processes can be achieved in under 3 hours if equipped with proper tools and crane.
- No special tooling is required for the assembly and disassembly process.



## Non Hydraulic Extendable Amphibious (standard)

- For non hydraulic extendable design, there are 2 separate locking pin positions for each pontoon on the horizontal mounting beams.
- Users can choose their desired overall track width during the installation process.



## Hydraulic Extendable Amphibious & Retractable Pontoons (Optional)

- $\cdot$  Extension and retraction of pontoons "on the fly" (model dependent).
- When fully extended, it offers the extra stability needed when situation calls for Fully retracted provide the flexibility of narrow track width when needs arises.
- Designed for ease of land transportation of complete machine by trailer when pontoons are fully retracted.
- Higher ROI through long term saving of manpower, crane hiring and other logistical cost
- Hydraulic extendable pontoons is a standard feature for 8 ton and 14 ton class and below amphibious machine.
- $\cdot$  Optional features for 20 ton class and above model.



# **SUPPLEMENTARY PONTOONS AND SPUDS (OPTIONAL)**

- Supplementary pontoons can be added on each side to boost stability in deeper water operation.
- Spud piles attach to supplementary pontoons help to overcome buoyancy effect, it offers added stability and enhanced operability.
- Pontoons are designed and built with provision for future addition of supplementary pontoon and spud system.
- $\cdot$  Future proof in design.



# **SUPER LONG REACH KIT (OPTIONAL)**

- $\cdot$  Doosan SLR kit is designed for using in drainage canal construction and preservation and Light duty excavation at long distance
- Doosan offers SLR kit range from 8 tons machine to 34tons machine.





Description	Unit	Doosan Amphibious Model			
		DX140 AM	DX225 AM		
Boom Length	mm	7,020	8,100		
Arm Length	mm	5,100	5,800		
Bucket Capacity	mm	0.4	0.5		
Bucket Breakout Force (SAE)	kgf	8,255	10,469		
Arm Digging Force (SAE)	kgf	3,274	5,074		
Ground Pressure	kgf/cm <sup>2</sup>	0.144	0.161		

\* Please do not hesitate to contact "DOOSAN DEALER" for SLR Front option of DX80R AM, DX260 AM, DX300 AM and DX340 AM.





# PERFORMANCE

The performance of the Doosan machine has a direct effect on its productivity. Its new improved engine and new e-EPOS controlled hydraulic system have combined to create an unbeatable hydraulic excavator, with a cost/performance ratio that makes the Doosan machine even more appealing.

#### Maximum performance by Doosan engine

Doosan engine perfectly harmonized with the hydraulic system and provides strong power. Mechanical engine providing high resistance to moisture, dust, and bad fuel quality.



#### Smooth swing with Increased Swing torque

New motor swing reduction gear minimizes shocks during rotation while making increased swing torque .





• Maintenance and oil change intervals can be displayed.

# **FUEL EFFICIENCY**



# **RELIEF CUTOFF**

to prevent transfer of unnecessary flow

Typically, the pump tends to supply flow even when the maximum pressure
on the system is reached due to severe working environments and large workloads.



Relief cutoff technology of Doosan prevent transfer of unnecessary flow to keep powerful working level at the maximum value while reducing consumption of fuel.



# **Relief Cutoff**



# Waiting

# **OPTIMIZED LEVER CONTROL**

to prevent unnecessary fuel consumption

1.

When operator takes break for rest with the joystick kept fixed, both of the engine and the pump are kept in standby mode with maximum rotation rate and hydraulic power. In such a case, unnecessary fuel consumption takes place.

#### **Optimized Lever Control**

In auto idle, you can save 90% of fuel than in operation.





# & AUTO IDLE



# **ENGINE & PUMP MATCHING**

to reduce matching response time of the system

The auto idle technology effectively controls the engine, and prevents unnecessary fuel consumption while the engine is kept in standby mode.

Further, the optimized lever control technology effectively controls the pump to keep power of the pump maximum and prevent fuel consumption while the system is kept shut down.

When operating the joystick, rotation rate of the engine and maximum hydraulic power of the pump increase simultaneously for efficient consumption of fuel. The technologies of Doosan enable operation of the system with maximum power in time. It is common that response time of the system (time for generating rated power from the minimum power) is slower than response speed of the pump. In such a case, the pump is kept in standby mode until the engine reaches the rated power to cause unnecessary fuel consumption. In addition, more fuel is supplied to the engine for matching the pump speed with the engine to result in more exhaust fumes.

Engine & pump matching, the new technology of Doosan, fully resolves these problems. Matching response time between pump and engine efficiently reduces unnecessary fuel consumption as well as exhaust fumes.

## **Engine & pump matching**

Matching response time between pump and engine makes higher performance with reduced fuel consumption.



# **Efficient Dynamics Features** CONTROL LOGIC" for Better Fuel Efficiency

# RELIABILITY

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.

#### **Strengthened Boom**

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

#### **Arm Assembly**

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

#### **D-type Frame**

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

#### **Polymer shim**

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

### Dry type of pre cleaner

Pre cleaner filters out impurities again for keeping steady machine performance.







The track system (shoe, chain, roller, pin and bushing) is extremely controlled tight tolerance. The track shoe supported by multiple stands of track chains provided the advantage of uniform pulling force and superior weight distribution across each track shoe. The shape of shoe is optimized to generate the powerful thrust force under water and driving force on the ground also.



### 2 Manhole

Regular inspection and maintenance is very easy because of manholes side pontoon. Manhole is designed most suitable position to check inside of pontoon and the size of manhole is big enough to come in and out for a operator.

DX 225AM



#### Axle drum and Sprocket

Non weld-on sprocket design which precisely machined and bolted onto axial ensures a perfect alignment of each sprocket across the axial, a critical criterion for the longevity of the track chain.



# COMFORT

The work rate of the hydraulic excavator is directly linked to the performance of its operator. DOOSAN designed a cabin by putting the operator at the center of the development goals. The result is significant ergonomic value that improves the efficiency and safety of the operator.

# VISIBILITY

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



# **CONTROL OPTIONS**

The hydraulic excavator's power, durability, ease of servicing and its precise control increase its effectiveness and life expectancy. DOOSAN offers an excellent return on investment.

## **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.)



#### Air suspension seat (Optional)

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.

#### MP3/CD Player (Optional)



#### **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.

Appropriate storage spaces show the attention given to the operator.









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.









#### **Control panel**

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





# MAINTENANCE

### **Easy maintenance**

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



## **Fuel pre-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.

#### 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.

#### **Remote greasing points**

For comfortable maintenance, the arm and boom greasing points have been centralized. Remote & grouped greasing points on boom & arm.







#### Hydraulic oil return filter

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



#### **New battery box**

a. Cut-off switch easier to reach

- b. New spring to facilitate fixing
- c. New locking device

#### **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.





### **PC monitoring**

A PC monitoring function enables connection to the e-EPOS system. Thus, various parameters can be checked during maintenance, including pump pressures, engine rotation and engine speed. These can be stored and printed for analysis.



### Larger anti-slip surface

High fraction coefficient guarantees user's safety while maintaining main parts in wet condition.



# **TECHNICAL SPECIFICATION**

# DX80r AM

#### Engine

Model 4TNV98-ZWDB8

**Number of cylinders** 

**Rated horse power** 39.9kW (54.2PS, 53.5HP) @2,000rpm (SAE1349, net)

Max torque 23.7kgf.m @ 1,300rpm

**Piston displacement** 3,319cc

**Bore & stroke** Ø98 x 110 mm

Starter 12V / 3.0kW

Batteries 1 x 12V / 100Ah

Alternator 12V / 60A

Air cleaner Double element with auto dust evacuation

## Hydraulic System

Single variable displacement axial piston pump with tandem gear pump. 10 spool main control valve of sandwich construction. This original design enables both independent and combined operations of all functions. Pilot joystick and pedal control type operation.

### Main pumps

Variable displacement axial piston pump - Max flow : 144 ℓ /min (38US gpm, 31.7lmp gpm)

# Pilot pump

Gear pump - Max flow : 22 ℓ /min (5.81US gpm, 4.84lmp gpm)

#### Maximum system pressure

Boom / Arm / Bucket : 300kgf/cm<sup>2</sup> (294bar) Travel : 280kgf/cm<sup>2</sup> (275bar) Swing : 220kgf/cm<sup>2</sup> (215bar)

## **Hydraulic Cylinders**

High-strength piston rods and tubes are used. A cylinder cushion mechanism is provided for the boom and arm cylinders to assure shock-free operation and extend the life of the cylinders.

Cylinders	Quantity	Bore diameter x Rod diameter x Stroke
Boom	1	115 x 70 x 775mm
Arm	1	100 x 65 x 846mm
Bucket (STD Front)	1	85 x 55 x 690mm

#### Pontoon Undercarriage system

The pontoon undercarriage system is designed to be able to float on water as an added safety feature. It has 3 watertight compartments, hermetically sealed with individual manholes for easy access from the outside for inspection and preventive maintenance.

#### **Swing Mechanism**

High-torque, axial piston motor with planetary reduction gear bathed in oil. Swing circle is single-row, shear type ball bearing with inductionhardened internal gear. Internal gear and pinion gear immersed in lubricant. Swing parking brake is spring-set, hydraulic-released disc type.

Max swing torque

1,680kgf.m

Max swing speed 9.6rpm

**Rear swing radius** 1,300mm

#### **Drive**

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

#### Travel speed (fast / slow)

- On the ground : 2.0 / 1.5km/h (1.2 / 0.9mph)

- In the water : 2.5 / 2.0km/h (1.6 / 1.2mph)

#### Maximum traction force (fast / slow)

- On the ground : 2.7 / 5.2ton (5,800 / 11,500lbf)

#### Maximum grade

- On the ground : 30° (58%)

#### **Refill Capacities**

Fuel tank 115 Ω
Cooling system (Radiator capacity)
Engine oil 11.6ℓ
Swing drive 2 l
Final drive (each) 1.2 ℓ
Hydraulic system 127 ℓ
<b>Hydraulic tank</b> 73 ℓ

# **TECHNICAL SPECIFICATION**

# **DX140** AM

### Engine

#### Model

#### Doosan DL06\*

"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. (Tier II : DL06C)

#### Number of cylinders

6

#### Rated horse power

71kW (97PS, 95HP) @1,850rpm (SAE1349, net)

**Max torque** 44.5kgf.m @ 1,400rpm

**Piston displacement** 5,890cc

**Bore & stroke** Ø100 x 125 mm

Starter 24V / 4.5kW

**Batteries** 2 x 12V / 100Ah

### Alternator 24V / 60A

Air cleaner

Double element with auto dust evacuation

## Hydraulic System

The heart of the system is the e-EPOS (Electronic Power Optimizing System). It allows the efficiency of the system to be optimized for all working conditions and minimizes fuel consumption. The 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.

#### Main pumps

2 variable displacement axial piston pumps - Max flow : 2 x 114 ℓ /min (2 x 30.1US gpm, 2 x 25.1lmp gpm)

#### Pilot pump

Gear pump - Max flow : 27.8 ℓ /min (7.3US gpm, 6.1lmp gpm)

#### Maximum system pressure

Boom / Arm / Bucket : - Normal mode : 330kgf/cm<sup>2</sup> (324bar) - Power mode : 350kgf/cm<sup>2</sup> (343bar) Travel : 330kgf/cm<sup>2</sup> (324bar) Swing : 245kgf/cm<sup>2</sup> (240bar)

### **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 diameter x Rod diameter x Stroke
Boom	2	110 x 75 x 1,085mm
Arm	1	115 x 80 x 1,108mm
Bucket (STD Front)	1	100 x 70 x 900mm
Bucket (SLR Front)	1	85 x 55 x 690mm

#### Pontoon Undercarriage system

The pontoon undercarriage system is designed to be able to float on water as an added safety feature. It has 3 watertight compartments, hermetically sealed with individual manholes for easy access from the outside for inspection and preventive maintenance.

#### **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.

### Max swing torque

3,380kgf.m

Max swing speed

10.7rpm

#### 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)

- On the ground : 3.5 / 3.0km/h (2.2 / 1.9mph)
- In the water : 4.0 / 3.5km/h (2.5 / 2.2mph)

#### Maximum traction force (fast / slow)

- On the ground : 5.9 / 6.5ton (13,000 / 14,200lbf)

#### Maximum grade

- On the ground : 35° (70%)

#### **Refill Capacities**

Fuel tank 267ℓ

#### Cooling system (Radiator capacity) 20 l

Engine oil 25 ℓ

Swing drive

3.8 l

Final drive (each)

-

Hydraulic system 148 ℓ

Hydraulic tank 99 ℓ

# **TECHNICAL SPECIFICATION**

# **DX225** AM

### Engine

#### Model

#### Doosan DB58TIS

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 II.

#### Number of cylinders

6

# Rated horse power

110kW (150PS, 148HP) @1,900rpm (SAE1349, net)

**Max torque** 61.5kgf.m @ 1,400rpm

**Piston displacement** 5,785cc

**Bore & stroke** Ø102 x 118 mm

Starter 24V / 4.5kW

Batteries 2 x 12V / 100Ah

Alternator 24V / 60A

#### Air cleaner

Double element with auto dust evacuation

## Hydraulic System

The heart of the system is the e-EPOS (Electronic Power Optimizing System). It allows the efficiency of the system to be optimized for all working conditions and minimizes fuel consumption.

- The hydraulic system enables independent or combined operations.
- 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 206.5 l /min (2 x 54.6US gpm, 2 x 45.4lmp gpm)

#### Pilot pump

Gear pump - Max flow : 28.5 ℓ /min (7.5US gpm, 6.3lmp gpm)

# Maximum system pressure

Boom / Arm / Bucket : - Normal mode : 330kgf/cm<sup>2</sup> (324bar) - Power mode : 350kgf/cm<sup>2</sup> (343bar) Travel : 330kgf/cm<sup>2</sup> (324bar) Swing : 270kgf/cm<sup>2</sup> (265bar)

### **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 diameter x Rod diameter x Stroke
Boom	2	125 x 85 x 1,260mm
Arm	1	140 x 100 x 1,450mm
Bucket (STD Front)	1	120 x 80 x 1,060mm
Bucket (SLR Front)	1	100 x 70 x 900mm

#### Pontoon Undercarriage system

The pontoon undercarriage system is designed to be able to float on water as an added safety feature. It has 3 watertight compartments, hermetically sealed with individual manholes for easy access from the outside for inspection and preventive maintenance.

#### **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.

# Max swing torque

6,477kgf.m

Max swing speed

11.0rpm

#### 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)

- On the ground : 3.0 / 2.5km/h (1.9 / 1.6mph)
- In the water : 3.5 / 3.0km/h (2.2 / 1.9mph)

#### Maximum traction force (fast / slow)

- On the ground : 4.7 / 7.6ton (10,400 / 16,700lbf)

#### Maximum grade

- On the ground : 40° (84%)

#### **Refill Capacities**

Fuel tank

400 l
<b>Cooling system (Radiator capacity)</b> 24 Q
Engine oil 27 ℓ
Swing drive
Final drive (each) 3.3 ℓ
Hydraulic system 330ℓ
<b>Hydraulic tank</b> 240 ℓ

# **TECHNICAL SPECIFICATION**

# **DX260** AM

#### Engine

#### Model

#### Doosan DE08TIS

Mechanical engine with direct fuel injection 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 II

Number of cylinders

#### 6

### Rated horse power

136kW (185PS, 183HP) @1,900rpm (SAE1349, net)

Max torque 85kgf.m @ 1,400rpm

**Piston displacement** 8,071cc

**Bore & stroke** Ø111 x 139 mm

Starter 24V / 6.0kW

**Batteries** 2 x 12V / 150Ah

Alternator 24V / 60A

#### Air cleaner

Double element with auto dust evacuation

# Hydraulic System

The heart of the system is the e-EPOS (Electronic Power Optimizing System). It allows the efficiency of the system to be optimized for all working conditions and minimizes fuel consumption. The 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.
- Cross-sensing pump system for fuel savings.
- Auto deceleration system.
- Button control of flow in auxiliary equipment circuits.
- Computer-aided pump power control.

## Main pumps

- 2 Swash plate axial piston pumps
- Max flow : 2 x 230  ${\it Q}$  /min (2 x 60.8US gpm, 2 x 50.6lmp gpm)

#### Pilot pump

Gear pump - Max flow : 27 ℓ /min (7.1US gpm, 5.9lmp gpm)

## Maximum system pressure

Boom / Arm / Bucket : - Normal mode : 330kgf/cm<sup>2</sup> (324bar) - Power mode : 350kgf/cm<sup>2</sup> (343bar) Travel : 365kgf/cm<sup>2</sup> (358bar) Swing : 275kgf/cm<sup>2</sup> (270bar)

### **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 diameter x Rod diameter x Stroke
Boom	2	130 x 90 x 1,355mm
Arm	1	140 x 100 x 1,705mm
Bucket (STD Front)	1	130 x 90 x 1,080mm

#### Pontoon Undercarriage system

The pontoon undercarriage system is designed to be able to float on water as an added safety feature. It has 3 watertight compartments, hermetically sealed with individual manholes for easy access from the outside for inspection and preventive maintenance.

#### **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.

#### Max swing torque 9,860kgf.m

Max swing speed

10.4rpm

#### 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)

- On the ground : 3.0 / 2.5km/h (1.9 / 1.6mph)
- In the water : 3.5 / 3.0km/h (2.2 / 1.9mph)

#### Maximum traction force (fast / slow)

- On the ground : 7.6 / 12.6ton (16,800 / 27,900lbf)

#### Maximum grade

- On the ground : 40° (84%)

#### **Refill Capacities**

Fuel tank

# **TECHNICAL SPECIFICATION**

# **DX300** AM

#### Engine

#### Model

#### Doosan DE08TIS

Mechanical engine with direct fuel injection 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 II

Number of cylinders

#### 6

## Rated horse power

147kW (200PS, 197HP) @1,900rpm (SAE1349, net)

Max torque 86kgf.m @ 1,300rpm

**Piston displacement** 8,071cc

**Bore & stroke** Ø111 x 139 mm

Starter 24V / 6.0kW

Batteries 2 x 12V / 150Ah

Alternator 12V / 50A

#### Air cleaner

Double element with auto dust evacuation

### **Hydraulic System**

The heart of the system is the e-EPOS (Electronic Power Optimizing System). It allows the efficiency of the system to be optimized for all working conditions and minimizes fuel consumption. The 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.

#### Main pumps

Tandem axial piston pumps - Max flow :  $2 \times 247$  (min ( $2 \times 65.3$  US gpm,  $2 \times 54.3$  lmp gpm)

#### Pilot pump

Gear pump - Max flow : 28.5 ℓ /min (7.5US gpm, 6.3lmp gpm)

#### Maximum system pressure

Boom / Arm / Bucket : - Normal mode : 330kgf/cm<sup>2</sup> (324bar) - Power mode : 350kgf/cm<sup>2</sup> (343bar) Travel : 330kgf/cm<sup>2</sup> (324bar) Swing : 275kgf/cm<sup>2</sup> (270bar)

### **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 diameter x Rod diameter x Stroke
Boom	2	140 x 95 x 1,440mm
Arm	1	150 x 105 x 1,755mm
Bucket (STD Front)	1	140 x 90 x 1,150mm

#### Pontoon Undercarriage system

The pontoon undercarriage system is designed to be able to float on water as an added safety feature. It has 3 watertight compartments, hermetically sealed with individual manholes for easy access from the outside for inspection and preventive maintenance.

#### **Swing Mechanism**

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

**Max swing torque** 10,363kgf.m

Max swing speed 9.9rpm

#### 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 (fast / slow)

- On the ground : 3.0 / 2.5km/h (1.9 / 1.6mph)
- In the water : 3.5 / 3.0km/h (2.2 / 1.9mph)

#### Maximum traction force (fast / slow)

- On the ground : 7.1 / 11.4ton (15,600 / 25,000lbf)

#### Maximum grade

- On the ground : 40° (84%)

#### **Refill Capacities**

Fuel tank 500 l
Cooling system (Radiator capacity)
Engine oil 31.5 ℓ
Swing drive 6 l
Final drive (each) 7 ℓ
Hydraulic system 310ℓ
<b>Hydraulic tank</b> 280ℓ

# **TECHNICAL SPECIFICATION**

# **DX340** AM

### Engine

#### Model

Doosan DE12TIS 4-Cycle Air-To-Air Intercooler In-line Water-Cooled, Direct Injection, Tier II

#### Number of cylinders

6

Rated horse power 185kW (252PS, 247HP) @1,800rpm (SAE1349, net)

Max torque 114kgf.m @ 1,400rpm

**Piston displacement** 11,051cc

**Bore & stroke** Ø123 x 155 mm

Starter 24V / 6.0kW

Batteries 2 x 12V / 150Ah

Alternator 24V / 50A

#### Air cleaner

Double element and pre-filtered turbo with auto dust evacuation

# Hydraulic System

The heart of the system is the e-EPOS (Electronic Power Optimizing System). It allows the efficiency of the system to be optimized for all working conditions and minimizes fuel consumption. The 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.

#### Main pumps

Parallel bentaxis piston pumps - Max flow :  $2 \times 274$  (min ( $2 \times 72.4$  US gpm,  $2 \times 60.3$  lmp gpm)

#### Pilot pump

Gear pump - Max flow : 22.5 ℓ /min (5.9US gpm, 4.9lmp gpm)

#### Maximum system pressure

Boom / Arm / Bucket : - Normal mode : 330kgf/cm<sup>2</sup> (324bar) - Power mode : 350kgf/cm<sup>2</sup> (343bar) Travel : 335kgf/cm<sup>2</sup> (329bar) Swing : 275kgf/cm<sup>2</sup> (270bar)

## **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 diameter x Rod diameter x Stroke
Boom	2	150 x 100 x 1,430mm
Arm	1	170 x 120 x 1,805mm
Bucket (STD Front)	1	150 x 100 x 1,300mm

#### Pontoon Undercarriage system

The pontoon undercarriage system is designed to be able to float on water as an added safety feature. It has 3 watertight compartments, hermetically sealed with individual manholes for easy access from the outside for inspection and preventive maintenance.

#### **Swing Mechanism**

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

Max swing torque 11,660kgf.m

Max swing speed 8.9rpm

#### 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 (fast / slow)

- On the ground : 3.0 / 2.5km/h (1.9 / 1.6mph)
- In the water : 3.5 / 3.0km/h (2.2 / 1.9mph)

#### Maximum traction force (fast / slow)

- On the ground : 11.4 / 19.0ton (25,200 / 41,800lbf)

#### Maximum grade

- On the ground : 40° (84%)

#### **Refill Capacities**

Fuel tank 550 ℓ
Cooling system (Radiator capacity)
Engine oil 28ℓ
Swing drive
<b>Final drive (each)</b> 5.5 ℓ
Hydraulic system 440 ℓ
Hydraulic tank 380 ℓ

# **DIMENSIONS & WORKING RANGE**



#### With STD Front

Dimensions	Decemintian	11			Doosan Amph	ibious Models		
Dimensions	Description	Unit	DX80r am	DX140 AM	DX225 AM	DX260 AM	DX300 AM	DX340 AM
А	Max. Track Length	mm	7,000	9,290	9,630	9,630	10,840	11,840
В	Track Length on Ground	mm	3,200	4,500	4,150	4,150	5,000	5,200
С	Rear Upper Structure Length	mm	1,300	2,200	2,750	2,995	3,200	3,500
D	Overall Length	mm	7,825	9,865	11,150	11,490	12,450	13,300
E	Height of Boom	mm	2,410	2,915	3,375	3,460	3,730	3,705
F	Counterweight Clearance	mm	1,635	1,835	2,170	2,200	2,240	2,275
G	Overall Width, min/max	mm	2,990 / 3,790	4,220 / 5,320	4,800 / 6,280	5,470 / 6,910	6,200 / 7,200	6,270 / 7,270
Н	Undercarriage width, min/max	mm	2,990 / 3,790	3,950 / 5,050	4,470 / 5,950	5,170 / 6,610	5,910 / 6,910	5,970 / 6,970
I	Track Gauge, min/max	mm	1,860 / 2,660	2,500 / 3,600	2,850 / 4,330	3,250 / 4,690	3,990 / 4,990	4,020 / 5,020
J	Track Cleat Width	mm	1,100	1,450	1,620	1,920	1,920	1,950
К	Min. Ground Clearance	mm	1,030	1,140	1,300	1,300	1,300	1,130
L	Track Height	mm	1,550	1,690	2,030	2,030	2,030	2,030
Μ	Overall Cabin Height	mm	3,540	3,720	4,090	4,060	4,155	4,205
Ν	Upper Structure Overall Width	mm	2,266	2,540	2,710	2,710	2,960	2,990

### With SLR Front Option \*

Dimonsions	Description	Unit	Doosan Amph	ibious Models
Dimensions	Description	Unit	DX140 AM	DX225 AM
А	Max. Track Length	mm	9,290	9,630
В	Track Length on Ground	mm	4,500	4,150
С	Rear Upper Structure Length	mm	2,200	2,750
D	Overall Length	mm	12,240	13,550
E	Height of Boom	mm	2,950	3,470
F	Counterweight Clearance	mm	1,835	2,170
G	Overall Width, min/max	mm	4,220 / 5,320	4,800 / 6,280
Н	Undercarriage width, min/max	mm	3,950 / 5,050	4,470 / 5,950
I	Track Gauge, min/max	mm	2,500 / 3,600	2,850 / 4,330
J	Track Cleat Width	mm	1,450	1,620
К	Min. Ground Clearance	mm	1,140	1,300
L	Track Height	mm	1,690	2,030
М	Overall Cabin Height	mm	3,720	4,090
Ν	Upper Structure Overall Width	mm	2,540	2,710

\* Please do not hesitate to contact "DOOSAN DEALER" for dimensions (SLR Front option) of DX80R AM, DX260 AM, DX300 AM and DX340 AM.



### With STD Front

Dimensione	Description	11			Doosan Amph	ibious Models		
Dimensions	Description	Unit	DX80r AM	DX140 AM	DX225 AM	DX260 AM	DX300 AM	DX340 AM
R	Max. Cutting Height	mm	7,875	9,685	10,985	10,935	11,500	11,930
S	Max. Loading Height	mm	5,890	7,355	8,265	8,250	8,455	8,740
Т	Recommended Outreach	mm	7,035	8,315	9,965	10,225	10,830	11,505
U1	Max. Digging Depth (on Front)	mm	3,830	5,210	6,105	6,225	6,920	7,210
U2	Max. Digging Depth (on Side)	mm	3,130	3,660	4,180	4,070	4,775	5,200

# With SLR Front Option \*

Dimensions	Description	Unit	Doosan Amph	ibious Models
Dimensions	Description		DX140 AM	DX225 AM
R	Max. Cutting Height	mm	12,500	14,500
S	Max. Loading Height	mm	11,500	13,000
Т	Recommended Outreach	mm	12,000	14,000
U1	Max. Digging Depth (on Front)	mm	7,500	8,500
U2	Max. Digging Depth (on Side)	mm	6,950	7,200

\* Please do not hesitate to contact "DOOSAN DEALER" for working range (SLR Front option) of DX80R AM, DX260 AM, DX300 AM and DX340 AM.

# LIFTING CAPACITY



#### With STD Front

#### DX80R AM on Ground

A(m)		2		3		4	1	5	N	laximum Reach Po	sition
B(m)	F	(‡	ľ	œ	ľ	(‡	F	(‡	f	( <b>]</b> =	Reach (m)
6					1.85*	1.85*			1.88*	1.88*	4.17
5					1.76*	1.76*	1.78*	1.78*	1.65*	1.65*	5.06
4					2.04 *	2.04*	1.82*	1.82*	1.59*	1.59*	5.58
3			3.80*	3.80*	2.51*	2.51*	2.00*	2.00*	1.62*	1.62*	5.85
2			3.84*	3.84*	2.95*	2.95*	2.20*	2.20*	1.74*	1.74*	5.90
1			4.63*	4.63*	3.14*	3.14*	2.29*	2.29*	1.84*	1.84*	5.75
0 (Ground)	3.91*	3.91*	4.39*	4.39*	3.02*	3.02*	2.17*	2.17*	1.87*	1.87*	5.37
-1	5.48*	5.48*	3.63*	3.63*	2.53*	2.53*			1.84*	1.84*	4.70
-2	2.95*	2.95*	2.09*	2.09*					1.54*	1.54*	3.51

1. Unit of lifting weight is 1,000 kgf.

2. Load point is the end of the arm equipped with 0.24 meter cubic bucket capacity.

3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.

4. Lift capacities shown do not exceed 75 % of minimum tipping loads or 87 % of hydraulic capacities.

5. The least stable position is over the front.

6. Machine in "normal hydraulic mode" and "full-extended pontoon" for lifting capacity on the ground.

7. Lift capacities are in compliance with ISO 10567.

#### DX140 AM on Ground

A(m)		2		3	4	4		5		6		7	Max	imum Reach I	Position
B(m)	Ъ	( <b>]</b>	Ъ	( <b>]</b>	۳	( <b>]</b>	Ъ	( <b>]</b> =	Ь	(‡	۳	(‡	Ð	(‡	Reach (m)
8													1.80*	1.80*	4.91
7							2.62*	2.62*					1.62*	1.62*	5.87
6							2.76*	2.76*	2.43*	2.43*			1.54*	1.54*	6.53
5							3.09*	3.09*	2.94*	2.94*			1.52*	1.52*	6.99
4			4.69*	4.69*	3.99*	3.99*	3.61*	3.61*	3.39*	3.39*	2.29*	2.29*	1.55*	1.55*	7.29
3			6.91*	6.91*	5.11*	5.11*	4.25*	4.25*	3.77*	3.77*	2.79*	2.79*	1.62*	1.62*	7.43
2			8.84*	8.84*	6.18*	6.18*	4.88*	4.88*	4.15*	4.15*	3.13*	3.13*	1.74*	1.74*	7.43
1			8.26*	8.26*	6.96*	6.96*	5.40*	5.40*	4.48*	4.48*	3.14*	3.14*	1.93*	1.93*	7.30
0 (Ground)	5.16*	5.16*	8.97*	8.97*	7.39*	7.39*	5.72*	5.72*	4.68*	4.68*	2.33*	2.33*	2.21*	2.21*	7.02
-1	6.90*	6.90*	10.15*	10.15*	7.45*	7.45*	5.79*	5.79*	4.67*	4.67*			2.67*	2.67*	6.57
-2	9.12*	9.12*	9.54*	9.54*	7.11*	7.11*	5.52*	5.52*					3.51*	3.51*	5.92
-3	11.85*	11.85*	8.31*	8.31*	6.21*	6.21*							4.61*	4.61*	4.98

1. Unit of lifting weight is 1,000 kgf.

2. Load point is the end of the arm equipped with 0.39 meter cubic bucket capacity.

3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.

4. Lift capacities shown do not exceed 75 % of minimum tipping loads or 87 % of hydraulic capacities.

5. The least stable position is over the front.

6. Machine in "normal hydraulic mode" and "full-extended pontoon" for lifting capacity on the ground.

7. Lift capacities are in compliance with ISO 10567.

#### DX225 AM on Ground

A(m)		2		3	4	4	1	5	(	5		7	5	3	Maxi	mum Reach	Position
B(m)	Ъ	( <b>]</b> =	ł	(‡	Н	(‡	ť	(‡	ł	(‡	Ч	(‡	Ъ	(‡	Ъ	(‡	Reach (m)
9															2.83*	2.83*	6.53
8											3.40*	3.40*			2.67*	2.67*	7.34
7											3.88*	3.88*			2.59*	2.59*	7.95
6									4.26*	4.26*	4.06*	4.06*	3.59*	3.59*	2.58*	2.58*	8.39
5							5.31*	5.31*	4.74*	4.74*	4.35*	4.35*	4.09*	4.09*	2.62*	2.62*	8.69
4			10.85*	10.85*	7.75*	7.75*	6.20*	6.20*	5.29*	5.29*	4.70*	4.70*	4.30*	4.30*	2.72*	2.72*	8.87
3					9.20*	9.20*	7.08*	7.08*	5.85*	5.85*	5.06*	5.06*	4.52*	4.52*	2.87*	2.87*	8.93
2			6.84*	6.84*	10.24*	10.24*	7.79*	7.79*	6.33*	6.33*	5.38*	5.38*	4.71*	4.71*	3.08*	3.08*	8.88
1			7.80*	7.80*	10.77*	10.77*	8.26*	8.26*	6.67*	6.67*	5.60*	5.60*	4.82*	4.82*	3.39*	3.39*	8.71
0 (Ground)	6.65*	6.65*	9.61*	9.61*	10.86*	10.86*	8.44*	8.44*	6.83*	6.83*	5.69*	5.69*	4.81*	4.81*	3.82*	3.82*	8.42
-1	8.90*	8.90*	12.03*	12.03*	10.58*	10.58*	8.33*	8.33*	6.76*	6.76*	5.59*	5.59*			4.47*	4.47*	7.99
-2	11.49*	11.49*	12.88*	12.88*	9.93*	9.93*	7.90*	7.90*	6.40*	6.40*	5.17*	5.17*			4.67*	4.67*	7.41
-3	14.73*	14.73*	11.27*	11.27*	8.82*	8.82*	7.04*	7.04*	5.60*	5.60*					4.71*	4.71*	6.61
-4			8.90*	8.90*	7.03*	7.03*	5.46*	5.46*							4.59*	4.59*	5.53

1. Unit of lifting weight is 1,000 kgf.

2. Load point is the end of the arm equipped with 0.81 meter cubic bucket capacity.

3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.

4. Lift capacities shown do not exceed 75 % of minimum tipping loads or 87 % of hydraulic capacities.

5. The least stable position is over the front.

6. Machine in "normal hydraulic mode" and "full-extended pontoon" for lifting capacity on the ground.

7. Lift capacities are in compliance with ISO 10567.

#### DX260 AM on Ground

A(m)	:	2		3		4	1	5		5		7		3	9	9	Maxir	num Reach	Position
B(m)	ľ	(‡	H	( <b>]</b> =	ŀ	( <b>]</b> =	ľ	(‡	ľ	( <b>]</b> =	f	(‡	ŀ	(計	f	(‡	H	(計	Reach (m)
9																	2.98*	2.98*	6.92
8											4.27*	4.27*					2.82*	2.82*	7.68
7											4.35*	4.35*	3.58*	3.58*			2.75*	2.75*	8.25
6									4.87*	4.87*	4.62*	4.62*	4.46*	4.46*			2.74*	2.74*	8.67
5							6.21*	6.21*	5.48*	5.48*	5.00*	5.00*	4.68*	4.68*			2.78*	2.78*	8.96
4					9.27*	9.27*	7.30*	7.30*	6.17*	6.17*	5.44*	5.44*	4.95*	4.95*	3.50*	3.50*	2.88*	2.88*	9.12
3					10.99*	10.99*	8.36*	8.36*	6.85*	6.85*	5.89*	5.89*	5.24*	5.24*	3.98*	3.98*	3.04*	3.04*	9.18
2					12.18*	12.18*	9.21*	9.21*	7.44*	7.44*	6.30*	6.30*	5.50*	5.50*	4.01*	4.01*	3.26*	3.26*	9.12
1			8.06*	8.06*	12.79*	12.79*	9.77*	9.77*	7.87*	7.87*	6.60*	6.60*	5.69*	5.69*			3.57*	3.57*	8.95
0 (Ground)	7.22*	7.22*	10.19*	10.19*	12.91*	12.91*	10.02*	10.02*	8.10*	8.10*	6.75*	6.75*	5.74*	5.74*			4.01*	4.01*	8.66
-1	9.76*	9.76*	12.90*	12.90*	12.64*	12.64*	9.95*	9.95*	8.08*	8.08*	6.70*	6.70*	5.57*	5.57*			4.66*	4.66*	8.24
-2	12.61*	12.61*	15.56*	15.56*	11.98*	11.98*	9.53*	9.53*	7.75*	7.75*	6.34*	6.34*					5.42*	5.42*	7.67
-3	16.13*	16.13*	13.87*	13.87*	10.83*	10.83*	8.67*	8.67*	6.98*	6.98*							5.52*	5.52*	6.90
-4			11.36*	11.36*	8.97*	8.97*	7.09*	7.09*									5.48*	5.48*	5.86

1. Unit of lifting weight is 1,000 kgf.

2. Load point is the end of the arm equipped with 0.93 meter cubic bucket capacity.

3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.

4. Lift capacities shown do not exceed 75 % of minimum tipping loads or 87 % of hydraulic capacities.

5. The least stable position is over the front.

6. Machine in "normal hydraulic mode" and "full-extended pontoon" for lifting capacity on the ground.

7. Lift capacities are in compliance with ISO 10567.

# LIFTING CAPACITY

#### DX300 AM on Ground

A(m)	1	2		3		4		5	(	5		7	8	3		9	Maxin	num Reach	Position
B(m)	Ъ	(手	Ь	( <b>]</b> =	ť	( <b>]</b> =	Ъ	(‡	Ч	(]	Ъ	(‡	Ч	(‡	Н	( <b>‡</b> 2	ť	(‡	Reach (m)
10																	3.56*	3.56*	6.69
9											4.35*	4.35*					3.32*	3.32*	7.61
8											4.36*	4.36*	4.12*	4.12*			3.21*	3.21*	8.30
7											4.59*	4.59*	4.59*	4.59*			3.17*	3.17*	8.82
6									5.28*	5.28*	5.00*	5.00*	4.82*	4.82*	4.01*	4.01*	3.20*	3.20*	9.20
5							6.95*	6.95*	6.09*	6.09*	5.53*	5.53*	5.16*	5.16*	4.94*	4.94*	3.28*	3.28*	9.46
4					10.75*	10.75*	8.35*	8.35*	6.98*	6.98*	6.13*	6.13*	5.56*	5.56*	5.19*	5.19*	3.42*	3.42*	9.61
3					12.89*	12.89*	9.68*	9.68*	7.87*	7.87*	6.73*	6.73*	5.97*	5.97*	5.45*	5.45*	3.62*	3.62*	9.65
2					14.37*	14.37*	10.77*	10.77*	8.64*	8.64*	7.28*	7.28*	6.36*	6.36*	5.70*	5.70*	3.90*	3.90*	9.59
1			9.00*	9.00*	15.17*	15.17*	11.51*	11.51*	9.23*	9.23*	7.72*	7.72*	6.67*	6.67*	5.89*	5.89*	4.29*	4.29*	9.42
0 (Ground)	8.35*	8.35*	11.21*	11.21*	15.45*	15.45*	11.92*	11.92*	9.60*	9.60*	8.01*	8.01*	6.86*	6.86*	5.95*	5.95*	4.82*	4.82*	9.14
-1	10.91*	10.91*	13.89*	13.89*	15.32*	15.32*	11.99*	11.99*	9.72*	9.72*	8.10*	8.10*	6.88*	6.88*			5.59*	5.59*	8.73
-2	13.71*	13.71*	17.16*	17.16*	14.80*	14.80*	11.73*	11.73*	9.56*	9.56*	7.95*	7.95*	6.61*	6.61*			6.37*	6.37*	8.18
-3	17.01*	17.01*	17.96*	17.96*	13.85*	13.85*	11.08*	11.08*	9.03*	9.03*	7.39*	7.39*					6.66*	6.66*	7.45
-4	21.21*	21.21*	15.76*	15.76*	12.30*	12.30*	9.85*	9.85*	7.89*	7.89*							6.96*	6.96*	6.49
-5			12.42*	12.42*	9.73*	9.73*	7.52*	7.52*									7.15*	7.15*	5.16

1. Unit of lifting weight is 1,000kgf.

2. Load point is the end of the arm equipped with 1.03 meter cubic bucket capacity.

3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.

4. Lift capacities shown do not exceed 75 % of minimum tipping loads or 87 % of hydraulic capacities.

5. The least stable position is over the front.

6. Machine in "normal hydraulic mode" and "full-extended pontoon" for lifting capacity on the ground.

7. Lift capacities are in compliance with ISO 10567.

A(m)		2		3		4	1	5		6		7		8		9	1	0	Maxim	num Reach	Position
B(m)	Ъ	( <b>]</b>	Ь	(]	ľ	(手)	ť	(手)	F	(‡	ŀ	( <b>]</b> =	Ь	( <b>]</b> =	ŀ	( <b>]</b>	Ч	( <b>]</b>	Ь	(手	Reach (m)
10																			4.74*	4.74*	7.53
9													5.25*	5.25*					4.47*	4.47*	8.34
8													5.22*	5.22*					4.33*	4.33*	8.97
7													5.39*	5.39*	5.28*	5.28*			4.28*	4.28*	9.46
6											6.10*	6.10*	5.70*	5.70*	5.43*	5.43*			4.30*	4.30*	9.81
5							8.86*	8.86*	7.56*	7.56*	6.70*	6.70*	6.10*	6.10*	5.67*	5.67*	4.73*	4.73*	4.39*	4.39*	10.05
4					13.62*	13.62*	10.40*	10.40*	8.55*	8.55*	7.36*	7.36*	6.54*	6.54*	5.96*	5.96*	5.53*	5.53*	4.54*	4.54*	10.19
3					15.82*	15.82*	11.81*	11.81*	9.49*	9.49*	8.00*	8.00*	6.98*	6.98*	6.24*	6.24*	5.67*	5.67*	4.76*	4.76*	10.22
2					16.48*	16.48*	12.87*	12.87*	10.26*	10.26*	8.55*	8.55*	7.36*	7.36*	6.48*	6.48*	5.78*	5.78*	5.08*	5.08*	10.13
1			9.53*	9.53*	16.62*	16.62*	13.50*	13.50*	10.78*	10.78*	8.94*	8.94*	7.63*	7.63*	6.64*	6.64*			5.51*	5.51*	9.99
0 (Ground)	9.15*	9.15*	12.20*	12.20*	17.67*	17.67*	13.71*	13.71*	11.03*	11.03*	9.15*	9.15*	7.76*	7.76*	6.66*	6.66*			5.91*	5.91*	9.72
-1	12.20*	12.20*	15.34*	15.34*	17.18*	17.18*	13.55*	13.55*	10.99*	10.99*	9.12*	9.12*	7.69*	7.69*	6.46*	6.46*			6.03*	6.03*	9.33
-2	15.49*	15.49*	19.07*	19.07*	16.28*	16.28*	13.01*	13.01*	10.63*	10.63*	8.81*	8.81*	7.32*	7.32*					6.14*	6.14*	8.81
-3	19.28*	19.28*	19.01*	19.01*	14.92*	14.92*	12.04*	12.04*	9.86*	9.86*	8.10*	8.10*	6.45*	6.45*					6.20*	6.20*	8.13
-4	21.61*	21.61*	16.25*	16.25*	12.94*	12.94*	10.50*	10.50*	8.52*	8.52*	6.68*	6.68*							6.15*	6.15*	7.25
-5			12,40*	12.40*	10.03*	10.03*	8.03*	8.03*	6.02*	6.02*									5.82*	5.82*	6.09

#### DX340 AM on Ground

1. Unit of lifting weight is 1,000kgf.

 $\ensuremath{\text{2.Load}}$  point is the end of the arm equipped with 1.25 meter cubic bucket capacity.

3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.

4. Lift capacities shown do not exceed 75 % of minimum tipping loads or 87 % of hydraulic capacities.

5. The least stable position is over the front.

6. Machine in "normal hydraulic mode" and "full-extended pontoon" for lifting capacity on the ground.

7. Lift capacities are in compliance with ISO 10567.

## With SLR Front Option \*

#### DX140 AM on Ground

A(m)	Ĩ		3		4	4	1	5	e				8	3	9	9	1	0	Maxii	mum Reach	Position
B(m)	ð	(‡	ð	(‡	ð	(‡	ł	(‡	Ð	(‡	f	( <b>]</b> =	f	(‡	Ь	(‡	ł	(‡	ł	( <b>]</b> =	Reach (m)
11									3.18*	3.18*									3.18*	3.18*	6.05
10									3.62*	3.62*	2.95*	2.95*							2.95*	2.95*	7.28
9									3.49*	3.49*	3.38*	3.38*	2.84*	2.84*					2.83*	2.83*	8.21
8									3.67*	3.67*	3.48*	3.48*	2.98*	2.98*					2.67*	2.67*	8.92
7							3.96*	3.69*	4.01*	4.01*	3.87*	3.87*	3.48*	3.48*	2.67*	2.67*			2.04*	2.04*	9.48
6							4.60*	4.60*	4.60*	4.60*	4.40*	4.40*	3.53*	3.53*	3.25*	3.25*			2.04*	2.04*	9.90
5			6.87*	6.87*	6.58*	6.58*	6.18*	6.18*	5.74*	5.74*	5.24*	5.24*	4.62	4.63*	3.80*	3.80*	2.48*	2.48*	2.10*	2.10*	10.21
4			8.72*	8.72*	9.94	11.15	7.81	8.78	6.37	7.18	5.34	6.03	4.56	5.17	3.95	4.40*	2.98*	2.98*	2.18*	2.18*	10.40
3			7.41*	N/A	9.64	10.85	7.62	8.60	6.25	7.06	5.26	5.95	4.50	5.11	3.91	4.45	3.39*	3.39*	2.31*	2.31*	10.50
2			3.95*	N/A	9.25	N/A	7.47	8.44	6.14	6.95	5.18	5.88	4.45	5.06	3.87	4.42	3.41	3.71*	2.47*	2.47*	10.50
1			2.61*	N/A	6.66*	N/A	7.35	8.32	6.05	6.86	5.12	5.81	4.4	5.01	3.84	4.38	3.39	3.86*	2.68*	2.68*	10.41
0 (Ground)	2.22*	N/A	3.03*	N/A	5.33*	5.33*	7.27	8.25	5.99	6.80	5.07	5.76	4.36	4.97	3.81	4.35	3.37	3.70*	3.09*	3.09*	10.21
-1	2.82*	N/A	3.57*	N/A	5.13*	5.13*	7.23	8.21	5.95	6.76	5.03	5.73	4.34	4.95	3.80	4.34			3.40	3.89	9.91
-2	3.43*	N/A	4.20*	4.20*	5.71*	5.71*	7.22	8.19	5.93	6.75	5.02	5.71	4.33	4.93	3.79	4.33			3.57	4.08	9.49
-3	4.07*	N/A	4.91*	4.91*	6.51*	6.51*	7.23	8.21	5.94	6.75	5.02	5.71	4.33	4.94					3.82	4.37	8.94
-4	4.76*	N/A	5.73*	N/A	6.54*	6.54*	5.45*	5.45*	4.80*	4.80*	4.24*	4.24*	3.18*	3.18*					3.02*	3.02*	8.23
-5			6.69*	N/A	5.39*	N/A	4.56*	N/A	3.83*	N/A	3.15*	N/A							2.93*	2.93*	7.31
-6					9.39	N/A	7.39	N/A	6.07	N/A									5.97	6.56*	6.09

1. Unit of lifting weight is 1,000 kgf.

2. Load point is the end of the arm equipped with 0.4 meter cubic bucket capacity.

3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.

4. Capacities stated with "n/a" are limited by under carriage's working position.

5. Lift capacities shown do not exceed 75 % of minimum tipping loads or 87 % of hydraulic capacities.

6. The least stable position is over the front.

7. Machine in "normal hydraulic mode" and "full-extended pontoon" for lifting capacity on the ground.

8. Lift capacities are in compliance with ISO 10567.

#### DX225 AM on Ground

A(m)	1	2	3	3		4		5	(	5		7	8	3		9	1	.0	1	1	1	2	1	3	Maxim	um Reacl	n Position
B(m)	Ь	( <b>]</b> =	ŀ	( <b>]</b>	Ð	(‡	Ь	œ	Ь	œ	Ь	(‡	٣	(‡	Ь	(‡	Ь	(‡	ł	(‡	Ð	(]‡₽	Ь	(‡	ŀ	œ	Reach (m)
13																									3.42*	3.42*	8.59
12															3.22*	3.22*									3.22*	3.22*	9.65
11															5.14*	5.14*	4.67*	4.67*							4.67*	4.67*	10.52
10																	4.68*	4.68*	4.40*	4.40*					4.33*	4.33*	11.22
9															5.14*	5.14*	4.51*	4.51*	4.63	5.57*					3.62*	3.62*	11.80
8															5.62*	5.62*	5.09*	5.09*	4.62	6.02*	3.02*	3.02*			2.86*	2.86*	12.27
7															5.97	6.20*	5.21	5.66*	4.59	4.76*	3.24*	3.24*			2.05*	2.05*	12.65
6													6.83	7.45*	5.90	6.89*	5.16	6.18*	4.55	5.37	3.92*	3.92*			1.63*	1.63*	12.93
5									5.29*	5.29*	7.87	9.87*	6.72	8.96*	5.82	6.56*	5.10	7.14*	4.51	6.01*	4.01	4.50*	2.11*	2.11*	1.67*	1.67*	13.13
4			15.70*	N/A	9.13*	9.13*	7.13*	7.13*	6.72*	6.72*	7.71	11.05	6.60	8.57*	5.73	8.33	5.03	7.37	4.46	6.58	3.98	5.01*	2.58*	2.58*	1.72*	1.72*	13.26
3					13.67	N/A	10.87	15.54	8.95	12.84	7.55	10.88	6.48	9.40	5.64	8.24	4.97	7.30	4.41	6.53	3.94	5.47*	2.85*	2.85*	1.79*	1.79*	13.30
2					11.24*	N/A	10.59	15.26	8.75	12.64	7.40	10.74	6.37	9.29	5.56	8.15	4.90	7.24	4.36	6.48	3.90	5.84*	2.90*	2.90*	1.88*	1.88*	13.27
1			3.95*	N/A	8.76*	N/A	10.39	14.23*	8.59	12.48	7.28	10.61	6.27	9.19	5.48	8.08	4.84	7.18	4.32	6.44	3.87	5.82	2.68*	2.68*	2.10*	2.10*	13.17
0 (Ground)	3.48*	N/A	4.39*	N/A	7.28*	N/A	10.26	11.90*	8.47	12.36	7.18	10.51	6.20	9.11	5.42	8.02	4.80	7.13	4.28	6.40	3.85	5.79			3.25*	3.25*	12.98
-1	4.16*	N/A	4.99*	N/A	6.58*	6.58*	10.19	10.55*	8.40	12.29	7.11	10.45	6.14	9.06	5.37	7.97	4.76	7.09	4.25	6.37	3.83	5.50*			3.57	4.48*	12.71
-2	4.85*	N/A	5.67*	5.67*	7.17*	7.17*	9.82*	9.82*	8.35	12.25	7.07	10.40	6.10	9.02	5.34	7.94	4.73	7.07	4.24	6.36	3.82	5.77			3.69	5.58	12.36
-3	5.56*	N/A	6.42*	6.42*	7.91*	7.91*	10.15	10.50*	8.34	12.23	7.05	10.38	6.08	9.00	5.33	7.92	4.72	7.06	4.23	6.35					3.86	5.82	11.91
-4	6.30*	N/A	7.23*	N/A	8.79*	8.79*	10.18	11.47*	8.35	12.24	7.05	10.39	6.08	9.00	5.33	7.92	4.73	7.06	4.24	5.24*					3.97*	3.97*	11.36
-5	7.09*	N/A	8.13*	N/A	8.59*	N/A	7.23*	7.23*	6.59*	6.59*	7.07*	7.07*	6.10	6.51*	5.21*	5.21*	3.30*	3.30*							2.86*	N/A	10.68
-6	7.92*	N/A	9.12*	N/A	7.30*	N/A	6.25*	N/A	5.38*	N/A	4.63*	N/A	3.95*	N/A	3.31*	N/A									2.72*	N/A	9.85
-7			10.22*	N/A	12.56*	N/A	7.97*	N/A	4.33*	N/A	3.70*	N/A	3.06*	N/A											3.06*	N/A	8.83
-8							10.52	N/A	8.63	N/A	7.30	N/A													6.73	N/A	7.55

1. Unit of lifting weight is 1,000 kgf.

2. Load point is the end of the arm equipped with 0.5 meter cubic bucket capacity.

3. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.

4. Capacities stated with "n/a" are limited by under carriage's working position.

5. Lift capacities shown do not exceed 75 % of minimum tipping loads or 87 % of hydraulic capacities.

6. The least stable position is over the front.

7. Machine in "normal hydraulic mode" and "full-extended pontoon" for lifting capacity on the ground.

8. Lift capacities are in compliance with ISO 10567.

\* Please do not hesitate to contact "DOOSAN DEALER" for lifting capacity (SLR Front option) of DX80R AM, DX260 AM, DX300 AM and DX340 AM.

# **STANDARD AND OPTIONAL EQUIPMENT**

# **Standard Equipment**

#### Hydraulic system

- Boom and arm flow regeneration
- Boom and arm holding valves
- Swing anti-rebound valves
- One-touch power boost

#### Cabin & Interior

- Viscous cab mounts
- All weather sound suppressed type cab
- Air conditioner & Heater
- Adjustable suspension seat with head rest and adjustable arm rest
- Pull-up type front window and removable lower front window
- Room light
- Intermittent windshield wiper
- Cigarette lighter and ashtray
- Cup holder
- Hot & Cool box
- 7" LCD color monitor panel
- E/G RPM control dial
- AM/FM radio
- Remote radio ON/OFF switch
- 12V spare powers socket
- Serial communication port for laptop PC interface
- Joystick lever with 3 switches
- Sun visor
- Sun roof

#### Safety

- Large handrails and step
- Convex metal anti-slip plates
- Seat belt
- Hydraulic safety lock lever
- Safety glass
- Hammer for emergency escape
- Right and left rear view mirrors
- Travel alarm
- Battery protector cover
- Battery cut off switch

#### Others

- Double element air cleaner
- Water separator
- Fuel filter
- Dust screen for radiator/oil cooler
- Engine overheat prevention system
- Engine restart prevention system
- Self-diagnostic system
- Alternator (24V, 50 amps)
- Electric horn
- Halogen working lights (frame mounted 1, boom mounted 2)
- Hydraulic oil tank air breather filter
- Manual extendable pontoon system
- Standard steel track shoe

### **Optional Equipment**

#### Front parts and hydraulic system

- SLR Boom, arm, bucket and front piping
- Wide bucket for SLR front

#### **Cabin & Interior**

- Air suspension seat
- MP3/CD player
- Cassette player
- Rain shield
- High mount seat
- Rear Camera

#### Safety

- ROPS cabin
- Overload warning device
- Cabin Top/Front guard(ISO 10262, FOGS standard)
- Travel & swing alarm
- Rotation beacon
- Boom and arm cylinder lock valve

#### Others

- Lower wiper
- Fuel heater
- 80A alternator
- Fuel filler pump
- Additional working lights
- 4-fornt / 2-rear on cabin
- 2-front on cabin
- 1 on counterweight
- Hydraulic extendable pontoon system
- Supplementary pontoons and spud piles
- Upgraded polymer track shoe





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