

# Standard & Optional Equipment

**SOLAR 140WV**

## Standard equipment

### Hydraulic system

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

### Cabin & Interior

- Viscous cab mounts
- All weather sound suppressed type cab
- Air conditioner
- 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
- Graphic display monitor
- Fuel control dial
- AM/FM Radio and cassette player
- Remote radio ON/OFF switch
- 12V spare power socket
- Serial communication port for laptop PC interface
- Joystick lever with 2 switches

### Safety

- Large handrails and step
- Seat belt
- Hydraulic safety lock lever
- Safety glass
- Hammer for emergency escape
- Right and left rearview mirrors
- Reverse travel alarm

### Others

- Double element air cleaner
- Pre-cleaner
- Water separator
- Dust screen for radiator
- Engine overheat prevention system
- Engine restart prevention system
- Self-diagnostic system
- Alternator (24V, 60 amps)
- Electric horn
- Halogen working lights (frame mounted 2, boom mounted 2)
- Double tire
- Rear dozer blade

## Optional equipment

### Safety

- Boom and arm hose rupture protection valve
- Overload warning device
- Cabin Top/Front guard (ISO 10262, FOGS standard)
- Rotating beacon

### Cabin & Interior

- Front lower guard
- Sunvisor
- Sun roof
- Joystick lever with 3 switches

### Others

- Single tire
- Front dozer blade
- Front stabilizer
- Rear stabilizer
- Piping for hammer (one way)
- Piping for rotation
- Double fuel filter
- Additional work lights on the cabin (① 2 front lamps, ② 4 front and 2 rear lamps)
- Large capacity alternator (24V, 80A)
- Electric fuel supply pump



**Doosan Infracore**  
www.doosaninfracore.com

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

PBP S140W500 0703

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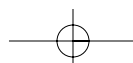
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Doosan Infracore  
Construction Equipment

# SOLAR140WV

Engine Power : DIN 6271,net      96kw(130ps)@2,200 rpm  
   SAE J 1349,net      96kw(128HP)@2,200 rpm  
Operational Weight : 13,100kg (28,880 lb)  
Bucket capacity(PCSA) : 0.58m<sup>3</sup>(0.76 cu.yd)



# Performance

This hydraulic excavator is equipped with the air-to-water intercooler engine, which has the greatest power output in its class and excellent fuel economy. It assures outstanding workability, productivity, and efficiency through the e-EPOS system, the new and improved version of EPOS System. This will assure increase in operating capacity and decrease in fuel consumption.



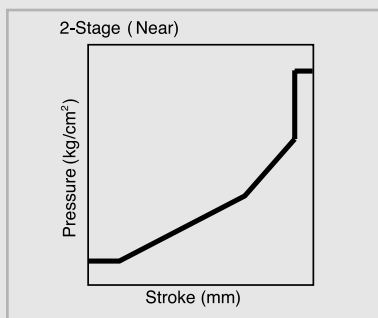
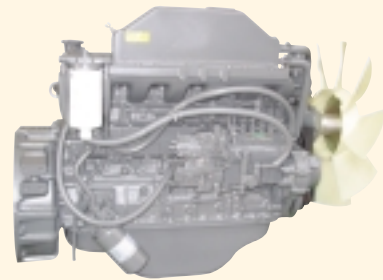
## Air to Water Intercooler Engine

Greatest power output and high-efficiency engine in it's class.

## Environment friendly, Green engine.

This machine is equipped with the engine meeting the U.S. EPA Tier-II Regulations and European stage-II Regulations requiring the reduction of harmful NOx, PM, HC, and CO emissions.

## Compatible with the European New Noise Control Requirements



## Improved maneuverability and control

New technologically advanced control valve and joystick valves have been installed to allow speedy, smooth and responsive control.



## Joystick grip with 2 switches

Spare switches are installed on both joystick grips to control the additional attachment.

# Excellent Reliability

Doosan's world-class center for product reliability performs sophisticated testing on all completed products, to ensure they meet or exceed market standards.

## Vertically mounted transmission

The transmission has been mounted vertically to increase ground clearance of the travel motor. It ensures the travel motor and hoses installed on the travel motor when travel terrible work field.



## Heat shield panel for turbo charger

The heat shield guard has been installed over the turbo charger to prevent the operator from inadvertently touching the hot surfaces while checking the engine area.



# Working Environment

Wide operator cabin space meet the ISO Standards and expanded all-round visibility. The low-noise, low-vibration type comfortable cabin provides the operator with safe and ergonomic operating environment.



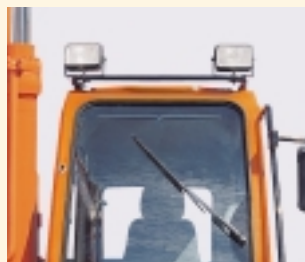
## The handle with tilting function

Because the handle with tilting function can be adjustable forward & backward according to operator's figure & location, It supply the best operation & minimize operator's fatigue in the optimum condition.



## Increased foot space

Instruments, controls, and accessories have been ergonomically located in the cabin and 300mm seat slide has been achieved to provide ample space for operator's feet and legs.

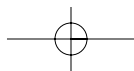


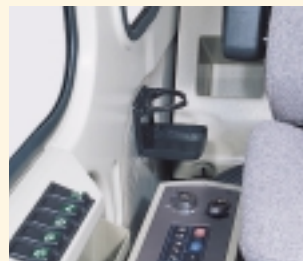
## Long wind shield wiper blade

Front visibility is further improved by using the lengthened wiper blade (wiper area increased 35% compared to previous machine.)

## Large ceiling cover

The ceiling cover can be opened to confirm the bucket operation even at the maximum excavating height. (Visual range increased by 25% compared to previous machine.)





**Cup holder**

A folding style cup holder has been installed in the cabin allowing the operator to easily store a can or cup.



**12V Spare Power Socket**

This socket can be used for charging a cellular phone or powering a small 12V DC electrical device.



**Fresh Air Type Air Conditioner**

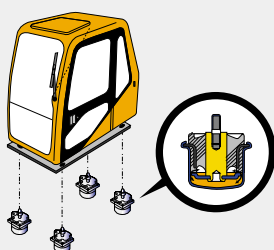
One touch selector switch for the air conditioner and heater output, featuring a multi-vent circulation system that allows for greater cooling / heating performance. Improved front window defroster system has been added to provide enhanced clarity and visibility during any working condition.

- Easy replaceable air filter.
- Larger cool air intake vents.
- Industry standard fresh air/recirculation control system incorporated.
- Modular electric fan condenser compartment.



**Low Vibration Cab Mounting System**

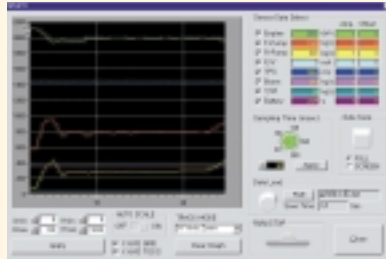
By using a total isolating seal design (full sealing) outside noise has been drastically reduced to the levels comparable to that in a modern car. A viscous sealed mounting system has been incorporated, and the frame, cabin and seat have been designed to absorb major and minor vibrations, resulting in a significant decrease in vibration felt by the operator.



# Maintenance

Quick and easy service checks, maximizing the excavator's life expectancy.

## PC monitoring function (SMS)



By connecting a laptop PC to the controller (e-EPOS controller) of the machine, data such as pump pressure and engine RPM can be displayed graphically. Also other various machine status data can be stored in memory and printed out using a printer.



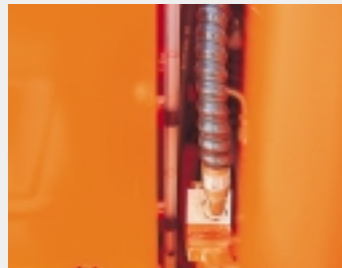
### Water separator

The transparent glass water separator is mounted at a location easily accessible from the ground allowing easy maintenance of the fuel system.



### Large fuel tank

The fuel tank with 280 liter capacity has been mounted to reduce filling up interval.



### All range fuel level gauge

The fuel level gauge which show the fuel through all range is installed on the side of the fuel tank.



### Engine oil drain valve

The engine oil drain valve with quick coupler provides fast and environmentally sound service-ability.



### Electrical control access box

Pull-out style drawer for electrical control access box allows for easy service and maintenance.

# Graphic display LCD Monitor panel

The information monitor panel displays both text and symbols for easy recognition of machine status and various other data

## Simplified operation mode selection

The 3 work modes from the previous models have been reduced to digging and trenching modes for easy selection.

### - Digging Mode :

General Excavating, Ground Leveling, Loading Dump Truck, allows for versatility.

### - Trenching Mode :

trenching or excavating of side wall, operations which require heavy swing work.



FAILURE LOG
CODE: 12 N:001 0075Hr
Press up s/v open
PRV:▲ NXT:▼ 01/01

### Self-diagnosis and fault history memory functions

Current faults and past faults history of the excavator control system are displayed and memorized on a real-time basis to enable correct diagnosis and quick repair.



02/05 [MO] 11:30A
ENG SPEED
2059
RPM

### Real-time clock with day / date

The real-time clock displays date and day in easy to read format.

1. Fuel Filter
Hrs: 0232 Reset

### Filter / oil operating hour display

The hours in use for 9 filters and oils can be displayed so that replacement intervals can be easily recognized.

LANGUAGE
Francais
Deutsch 4
SET:  English

### Multiple language display

The user menu can be displayed in multiple languages for the operator's convenience.

EPPR CURRENT
598
mA

### Real-time machine data display

Displays 28 different machine status data and information such as pump delivery pressure and engine RPM.



# Technical Data

## \* Engine

**Model** ..... DOOSAN DB58TIS  
**Type** ..... Water-cooled, 4-cycle,  
 6-cylinder in line, direct  
 injection chamber type  
 diesel engine.

### Rated flywheel horse power

DIN 6271, net ..... 96 KW (130 PS)  
 at 2,200 rpm  
 SAE J1349, net ..... 96 KW (128 HP)  
 at 2,200 rpm

**Piston displacement** ..... 5,785cc (353cu.in)

**Maximum torque** ..... 50 kgf.m (490 Nm,  
 362 lbf.ft) at 1,600 rpm

**Bore and stroke** ..... 102mm × 118mm  
 (4.0" × 4.6")

**Starting system** ..... 24V Electric motor

**Batteries** ..... 2 × 12V × 100 AH

Auto-idle system : Engine rpm is reduced automatically to the low  
 idle rpm after a lapse of approx. 4 seconds with all control levers in  
 neutral position, thus saving energy and reducing noise.

## Hydraulic system

Doosan's e-EPOS (Electronic Power Optimizing System) can  
 achieve maximum job efficiency and reduce fuel consumption.

- 2-power mode working system.
- 2-Working mode selection system.
- Computer aided engine pump control.
- Hydraulic system assures fully independent and combined  
 operations.
- Cross-sensing and fuel saving pump system.
- Auto idle system.
- 2 speed travel system for high traction force and travel  
 speed.
- Travel motor brake torque-up system.
- Cruise travel system.

**Main pumps** ..... 2 variable displacement  
 axial piston pumps.

Max. oil flow ..... 2 × 162 l/min  
 (2 × 42.8 US gpm,  
 2 × 35.6 Imp gpm)

**Pilot pump** ..... Gear pump

Max. oil flow ..... 22 l/min  
 (5.8 US gpm, 4.6 Imp gpm)

Pressure setting ..... 39 bar (569 psi, 40 kgf/cm<sup>2</sup>)

**Brake pump** ..... Gear pump

Max. oil flow ..... 14.3 l/min  
 (3.8 US gpm, 2.9 Imp gpm)

Pressure setting ..... 157 bar (2,276 psi, 160 kgf/cm<sup>2</sup>)

**Steering pump** ..... Gear pump

Max. oil flow ..... 28 l/min  
 (7.4 US gpm, 6.2 Imp gpm)

Pressure setting ..... 167bar (2,417 psi, 170 kgf/cm<sup>2</sup>)

### Main relief valves

Boom/Arm/Bucket ..... 343bar (4,978 psi, 350 kgf/cm<sup>2</sup>)  
 Travel circuit ..... 343 bar (4,978 psi, 350 kgf/cm<sup>2</sup>)

### Overload relief valves

Boom circuit ..... 353 bar (5,120 psi, 360 kgf/cm<sup>2</sup>)  
 Arm circuit ..... 353 bar (5,120 psi, 360 kgf/cm<sup>2</sup>)  
 Bucket circuit ..... 353 bar (5,120 psi, 360 kgf/cm<sup>2</sup>)

### Swing motor relief valve

..... 265 bar (3,840 psi, 270kgf/cm<sup>2</sup>)

## H Hydraulic cylinders

High-strength piston rods and tubes are used. Cylinder cush-  
 ion mechanism is provided for boom, articulated boom. Arm  
 and bucket cylinders to assure shock-free operation and  
 extend life of cylinder.

### Mono boom

Cylinders	Q'ty	Bore × Rod dia. × Stroke
Boom	2	110 × 75 × 1,030 mm (4" × 3" × 3.5")
Arm	1	110 × 75 × 1,085 mm (4" × 3" × 3'7")
Bucket	1	95 × 65 × 885 mm (4" × 3" × 2'11")

### Articulated boom

Cylinders	Q'ty	Bore × Rod dia. × Stroke
Boom	2	110 × 75 × 935 mm (4" × 3" × 3'1")
Arti.Boom	1	180 × 115 × 600 mm (7" × 5" × 1'12")
Arm	1	115 × 80 × 1,085 mm (5" × 3" × 3'7")
Bucket	1	95 × 65 × 885 mm (4" × 3" × 2'11")

## Super-structure revolving frame

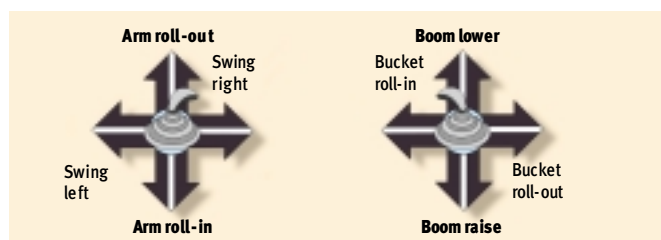
A deep, full-reinforced box section.  
 Heavy-gauge steel plates used for ruggedness.

## Operator's cab

Independent, shock and noise-free roomy ISO standard opera-  
 tor's cab. 4 side safety glass windows give all-round visibility.  
 Front window slides up and stores in the roof. Left and right side  
 windows opens for ventilation. Fully adjustable reclining seat :  
 fwd./rev. and up/down. Cab cooler is optionally available.

## Controls. 2 implement levers

Pilot pressure control type. Right lever is for boom and bucket  
 control, left lever for swing and arm control. Left rear lever is for  
 dozer and outrigger. Left bottom pedal is for articulated boom.





## Swing mechanism

High-torque, axial piston motor with planetary reduction gear bathed in oil. Swing circle is a single-row, shear type ball bearing with induction-hardened internal gear. Internal gear and pinion immersed in lubricant. Swing reactionless valve is internally attached. Spring applied hydraulically released parking brake.

A swing lock clamps the superstructure for transportation.

- Swing speed ..... 0 to 12.5 rpm (min<sup>-1</sup>)
- Rear swing radius ..... 2,210 mm (7' 3")



## Drive

Fully hydrostatic driven, 2 speed power shift transmission, variable displacement, high torque, axial piston motor, foot pedal controls provide smooth travel, hub reduction type front steering axle and rear rigid axle.

Travel speed ..... 0 to 37 km/h (23 mph)

\* A maximum speed restriction of 20 km/h is available as an option.

### Maximum traction

- force ..... 8,182 kgf (18,038 lbf)
- Gradeability ..... 35° (70%) continuous



## Undercarriage

Heavy-duty frame, all-welded stress-relieved structure. Top grade materials used for toughness. Specially heat-treated connecting pins. 9.00-20-14PR(OTR) double tires with tire spacer. Front axle oscillating hydraulically.

Rear dozer as a standard or outrigger as an option.

Front dozer as an option. Front outrigger as an option.

18-19.5-14PR(OTR) Tubeless single 10.0-20-14PR(OTR) double tires as an option.



## Brake

Full sealed wet discs service brakes operated hydraulic and full sealed wet discs parking brake operated hydraulically.



## Weight

Shipping weight-includes 10% fuel, 4,300mm(14'1") mono boom, 2,100mm(6'11") arm, 1,140mm(3'9") backhoe and rear dozer ..... 12,900 kg (28,440 lb)

### Major component weight

**Mono boom 4,600 mm (15'1") 790kg (1,741 lb)**

	kg	lb
Arm : 2,100mm(6'11")	350	772
Mono boom : 4,300mm(14'1")	740	1,631
4,600mm(15'1")	790	1,741
Upper structure	4,150	9,149
Counter weight	1,600	3,527
Counter weight	2,200	4,850

**Articulated boom 3,500 mm (11'6") 681kg (1,501 lb)**

	kg	lb
Arm : 2,500mm(8'2")	407	1,032
Upper boom : 3,500mm(10'9")	681	1,501
Lower boom : 1,850mm(6'1")	360	793
Upper structure	4,200	9,259
Counter weight	1,600	3,527
Counter weight	2,200	4,850



## Service refill capacities

	Liters	US gal	Imp gal
Fuel tank	280	60.8	50.6
Cooling system	31	8.19	6.82
<b>Lubrication</b>	<b>Liters</b>	<b>US gal</b>	<b>Imp gal</b>
Engine oil	19	5.02	4.18
Swing drive	3	0.79	0.66
Final drive (each)	1.25	0.24	0.20
Hydraulic tank	168	44.4	37.0

## Buckets

Capacity		Width		Weight	Recommendation					
PCSA, heaped	CECE, heaped	Without side cutters	With side cutters		4.3m (14'1") Boom			4.6m (15'1") Boom		
					1.9m (6'3") Arm	2.1m (6'11") Arm	2.25m (7'5") Arm	2.5m (8'2") Arm	2.1m (6'11") Arm	2.5m (8'2") Arm
0.30m <sup>3</sup> (2/ 5 yd <sup>3</sup> )	0.25m <sup>3</sup>	550mm (22")	650mm (26")	330kg (730 lb)	A	A	A	A	A	A
0.4m <sup>3</sup> (1/ 2 yd <sup>3</sup> )	0.35m <sup>3</sup>	760mm (30")	860mm (34")	380kg (840 lb)	A	A	A	A	A	B
0.52m <sup>3</sup> (11/ 16 yd <sup>3</sup> )	0.45m <sup>3</sup>	950mm (37")	1,050mm (41")	430kg (950 lb)	A	A	B	B	B	C
0.58m <sup>3</sup> (3/ 4 yd <sup>3</sup> )	0.50m <sup>3</sup>	1,040mm (41")	1,140mm (45")	450kg (990 lb)	B	B	C	C	C	X
0.64m <sup>3</sup> (5/ 6 yd <sup>3</sup> )	0.55m <sup>3</sup>	1,120mm (44")	1,220mm (48")	475kg (1,050 lb)	C	C	C	X	X	X
0.76m <sup>3</sup> (1 yd <sup>3</sup> )	0.65m <sup>3</sup>	1,300mm (51")	1,400mm (55")	520kg (1,150 lb)	C	X	X	X	X	X

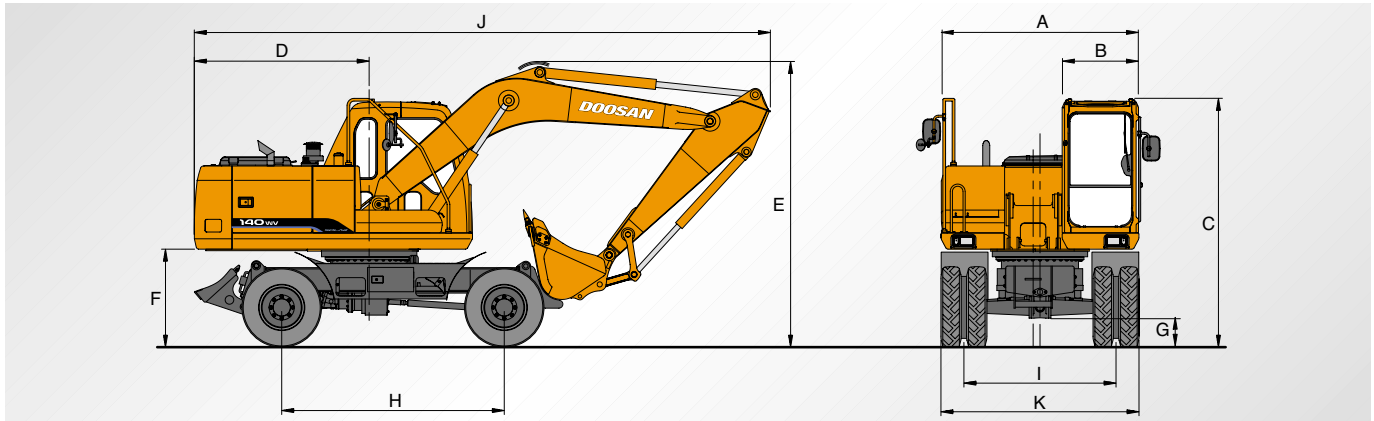
A. Suitable for materials with density of 1,800 kg/m<sup>3</sup> (3,370 lb/cu-yd) or less

B. Suitable for materials with density of 1,600 kg/m<sup>3</sup> (2,700 lb/cu-yd) or less

C. Suitable for materials with density of 1,100 kg/m<sup>3</sup> (1,850 lb/cu-yd) or less

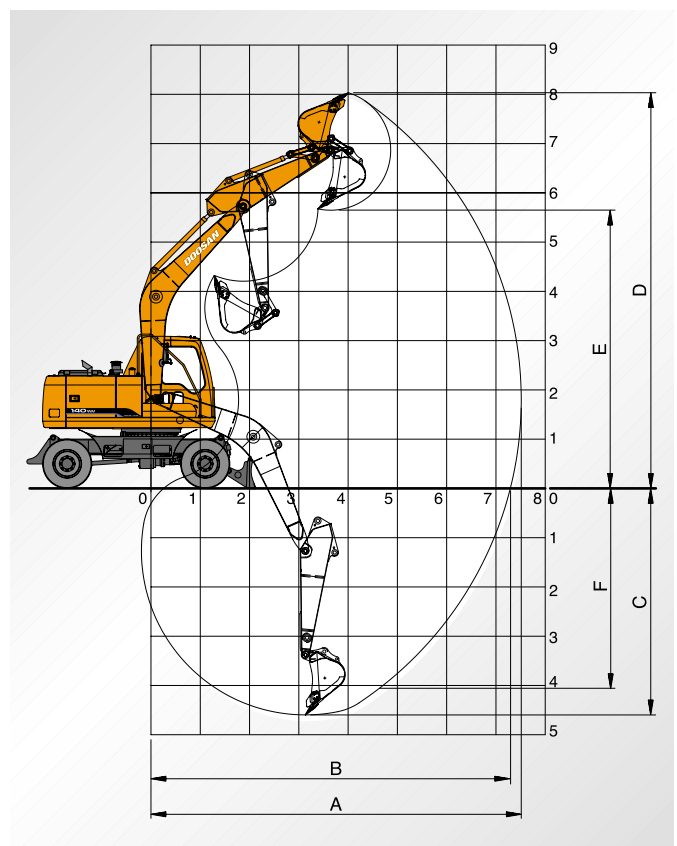
# Dimensions & Working Ranges (Mono Boom)

## Dimensions



<b>A Overall width of upper structure</b>	2,494mm(8'2")
<b>B Overall width of cab</b>	960mm(3'2")
<b>C Overall height of cab</b>	3,116mm(10'3")
<b>D Tail swing radius</b>	2,210mm(7'3")
<b>E Overall height of boom</b>	3,640mm(11'11")
<b>F Clearance under counterweight</b>	1,241mm(4'1")
<b>G Ground clearance</b>	350mm(14")
<b>H Wheel base</b>	2,800mm(9'2")
<b>I Tread</b>	1,914mm(6'3")
<b>J Overall length</b>	7,250mm(23'9")
<b>K Overall tire width with fender</b>	
9.00-20-14PR Double tire (standard)	2,496 mm(8'2")
10.00-20-14PR Double tire (optional)	2,496 mm(8'2")
18-19.5-14PR Single tire (optional)	2,474 mm (8'1")

## Working ranges



## Digging forces (Maximum radial tooth forces)

	Unit	2.1m (6'11")Arm	1.9m (6'3")Arm	2.25m (7'5")Arm	2.5m (8'2")Arm	3.0m (9'10")Arm
<b>Bucket digging force *</b>	kgf	8,338	8,338	8,338	8,338	8,338
	kN	81.8	81.8	81.8	81.8	81.8
	lbf	18,382	18,382	18,382	18,382	18,382
<b>Arm digging force *</b>	kgf	6,652	7,073	6,652	6,298	5,383
	kN	65.2	69.4	65.2	61.8	52.8
	lbf	14,665	15,593	14,665	13,885	11,867

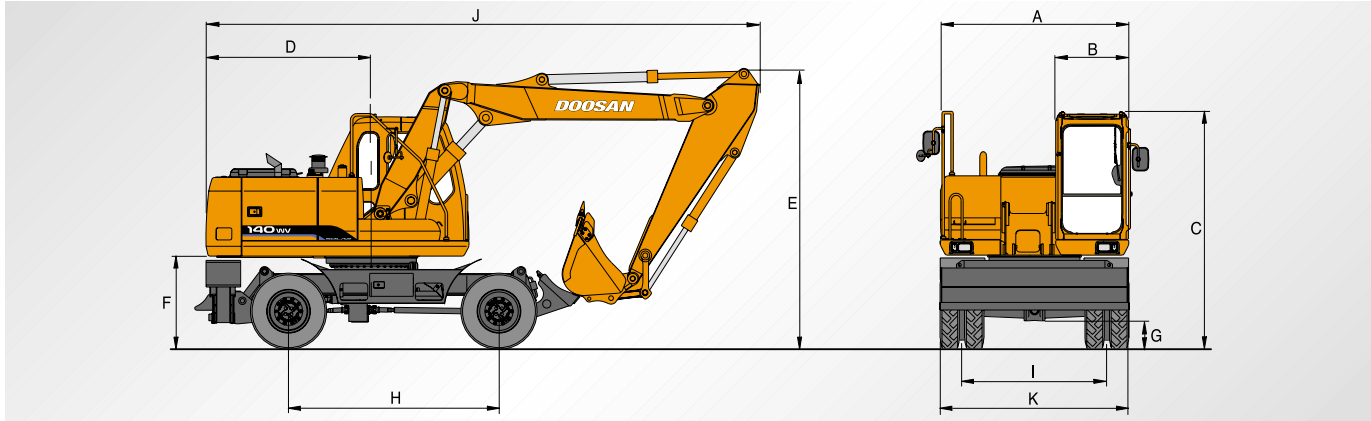
\*At power boost

Boom length	Mono boom 4,300mm (14'1")				Mono boom 4,600mm (15'1")	
Arm length	2,100mm (6'11")	1,900mm (6'3")	2,250mm (7'5")	2,500mm (8'2")	2,100mm (6'11")	2,500mm (8'2")
<b>A. Max. digging reach</b>	7,510mm (24'8")	7,305mm (23'12")	7,663mm (25'2")	7,935mm (26')	7,790mm (25'7")	8,208mm (26'11")
<b>B. Max. digging reach at ground level</b>	7,295mm (23'11")	7,080mm (23'3")	7,449mm (24'5")	7,728mm (25'4")	7,580mm (24'10")	8,009mm (26'3")
<b>C. Max. digging depth</b>	4,610mm (15'1")	4,411mm (14'6")	4,763mm (15'8")	5,013mm (16'5")	4,655mm (15'3")	5,056mm (16'7")
<b>D. Max. digging height</b>	8,020mm (26'4")	7,847mm (25'9")	7,956mm (26'1")	8,372mm (27'6")	8,222mm (26'12")	8,565mm (28'1")
<b>E. Max. dump height</b>	5,630mm (18'6")	5,475mm (17'12")	5,738mm (18'10")	5,967mm (19'7")	5,849mm (19'2")	6,170mm (20'3")
<b>F. Vertical wall digging depth</b>	4,086mm (13'5")	3,795mm (12'5")	4,270mm (14')	4,675mm (15'4")	4,228mm (13'10")	4,826mm (15'10")

# (Articulated Boom)

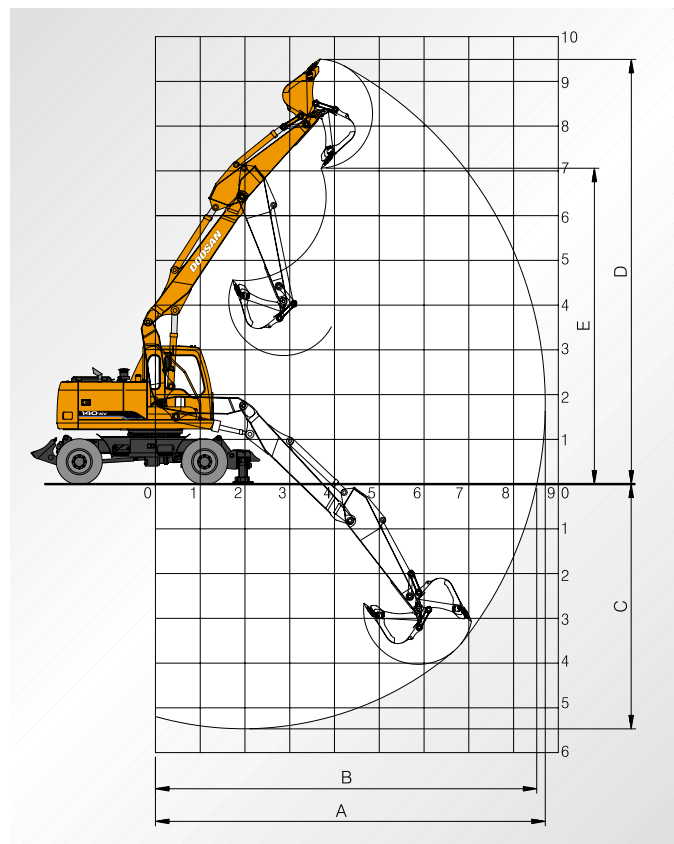
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## Dimensions



<b>A Overall width of upper structure</b>	2,494 mm(8'2")
<b>B Overall width of cab</b>	960 mm(3'2")
<b>C Overall height of cab</b>	3,116 mm(10'3")
<b>D Tail swing radius</b>	2,210 mm(7'3")
<b>E Overall height of boom</b>	3,824 mm(12'7")
<b>F Clearance under counter weight</b>	1,241 mm(4'1")
<b>G Ground clearance</b>	350 mm(14")
<b>H Wheel base</b>	2,800 mm(9'2")
<b>I Tread</b>	1,914 mm(6'3")
<b>J Overall length</b>	7,239 mm(23'9")
<b>K Overall tire width with fender</b>	
9.00-20-14PR Double tire (standard)	2,496 mm(8'2")
10.00-20-14PR Double tire (optional)	2,496 mm(8'2")
18-19.5-14PR Single tire (optional)	2,474 mm(8'1")

## Working ranges

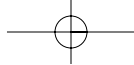


## Digging forces (Maximum radial tooth forces)

	Unit	2.1m (6'11")Arm	2.5m (8'2")Arm
<b>Bucket digging force *</b>	kgf	8,338	8,338
	kN	81.8	81.8
	lbf	18,382	18,382
<b>Arm digging force *</b>	kgf	6,652	6,298
	kN	65.2	61.8
	lbf	14,665	13,885

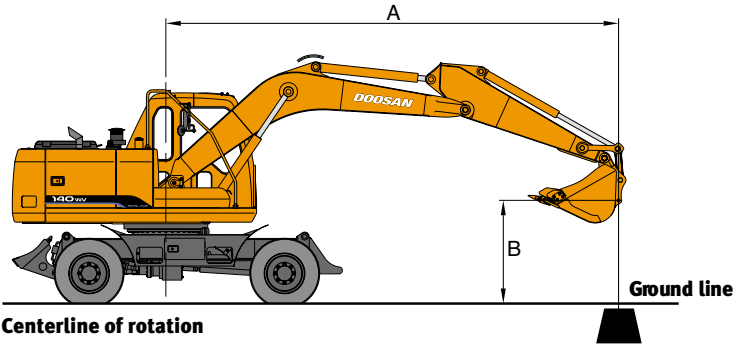
\*At power boost

Boom length	Articulated boom 4,970mm (16'4")	
<b>Arm length</b>	2,100mm (6'11")	2,500mm (8'2")
<b>A. Max. digging reach</b>	7,335mm (24'1")	8,708mm (28'7")
<b>B. Max. digging reach at ground level</b>	8,090mm (26'7")	8,521mm (27'11")
<b>C. Max. digging depth</b>	4,675mm (15'4")	5,483mm (18')
<b>D. Max. digging height</b>	8,065mm (26'5")	9,481mm (31'1")
<b>E. Max. dump height</b>	5,681mm (18'8")	7,044mm (23'1")



# Lifting Capacities (Mono Boom)

## Standard



A : Load radius from centerline of rotation  
 B : Load point height

**Rear Dozer Only (Free on wheel/Dozer on ground)**  
**Boom : 4.3 (14'1")**  
**Arm : 2.1 (6'11")**  
**Counter weight : 1.6ton (3,527 lb)**

## Metric

Unit : 1,000 kg

A(m)	3		4		5		6		Max. Reach		A(m)
6									*2.09	*2.09/*2.09	4.93
5					*3.29	2.44/*3.29			*2.08	1.97/*2.08	5.64
4			*4.86	3.45/4.81	*4.21	2.39/3.31	*2.49	1.74/2.43	*2.14	1.69/*2.14	6.11
3	*7.75	5.20/7.63	*6.12	3.29/4.64	5.03	2.31/3.22	*3.50	1.71/2.39	*2.26	1.53/2.15	6.38
2	*9.66	4.84/7.20	*7.07	3.13/4.45	4.92	2.22/3.13	3.64	1.66/2.34	*2.46	1.46/2.06	6.49
1	*10.79	4.58/6.90	7.10	2.98/4.30	4.82	2.14/3.04	3.58	1.62/2.30	*2.76	1.45/2.06	6.44
0	*10.48	4.46/6.77	6.98	2.90/4.20	4.75	2.09/2.98	3.55	1.59/2.26	*3.23	1.50/2.14	6.22
-1	*10.46	4.44/6.74	6.93	2.86/4.16	4.72	2.06/2.95			3.70	1.65/2.35	5.83
-2	*9.31	4.47/6.78	6.95	2.87/4.17	4.74	2.07/2.96			4.43	1.95/2.79	5.21

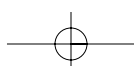
## Feet

Unit : 1,000 lb

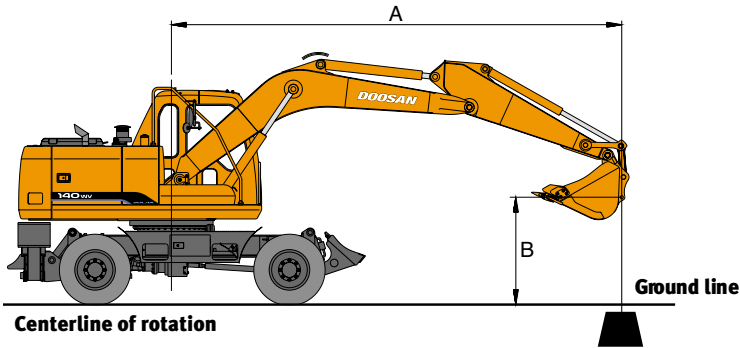
A(ft)	5'		10'		15'		20'		Max. Reach		A(m)
15'					*8.82	6.21/8.57			*4.62	4.03/*4.62	19.25
10'			*16.64	11.22/16.38	*12.20	5.89/8.23	*7.04	3.67/5.14	*4.97	3.39/4.76	20.91
5'			*22.33	10.10/15.09	12.50	5.51/7.81	7.76	3.53/4.98	*5.71	3.18/4.52	21.27
0'			*23.80	9.60/14.51	12.17	5.25/7.53	7.63	3.42/4.87	*7.13	3.31/4.72	20.42
-5'			*21.61	9.56/14.46	12.08	5.18/7.45			8.85	3.93/5.60	18.17

- Note
1. Ratings are based on SAE J1097
  2. The load point is a hook located on the back of the bucket.
  3. \*Rated loads are based on hydraulic capacity.
  4. Rated loads do not exceed 87% of hydraulic capacity or 75% of tipping capacity.

- : Rating over front
- : Rating over side or 360 degree
- 0 : Ground



**Option**



A : Load radius from centerline of rotation  
 B : Load point height

**Front Dozer and Rear Outrigger  
 (Free on wheel/Dozer & outrigger on ground)**  
**Boom : 4.6(15'1")**  
**Arm : 2.5(8'2")**  
**Counter weight : 2.2 ton (4,629 lb)**

**Metric**

Unit : 1,000 kg

A(m)	3		4		5		6		Max. Reach		A(m)
	□	□	□	□	□	□	□	□	□	□	
6					*2.73/*2.73	*2.73/*2.73			*1.77/*1.77	*1.77/*1.77	5.91
5					*3.12/*3.12	2.95/*3.12	*2.59/*2.59	2.18/*2.59	*1.75/*1.75	*1.75/*1.75	6.51
4					*3.70/*3.70	2.89/*3.70	*3.19/*3.19	2.15/*3.19	*1.79/*1.79	1.68/*1.79	6.92
3	*7.41/*7.41	6.21/*7.41	*5.82/*5.82	3.96/*5.82	*4.87/*4.87	2.80/*4.87	*3.89/*3.89	2.10/3.68	*1.87/*1.87	1.56/*1.87	7.16
2	*9.39/*9.39	5.84/*9.39	*6.82/*6.82	3.78/*6.82	5.32/*5.51	2.71/4.84	3.93/*4.73	2.05/3.62	*1.99/*1.99	1.50/*1.99	7.25
1	*7.85/*7.85	5.59/*7.85	*7.59/*7.59	3.64/6.83	5.21/*5.97	2.62/4.74	3.88/*4.97	2.00/3.57	*2.18/*2.18	1.50/*2.18	7.21
0	*7.13/*7.13	5.47/*7.13	7.56/*7.94	3.55/6.71	5.14/*6.21	2.56/4.67	3.83/*5.08	1.96/3.52	*2.46/*2.46	1.55/*2.46	7.02
-1	*8.25/*8.25	5.44/*8.25	7.51/*7.86	3.51/6.66	5.10/*6.16	2.53/4.63	3.81/*4.97	1.94/3.50	*2.89/*2.89	1.66/*2.89	6.67
-2	*9.59/*9.59	5.46/*9.59	*7.33/*7.33	3.51/6.67	5.10/*5.75	2.53/4.63	3.82/*4.47	1.95/3.51	*3.64/*3.64	1.89/3.39	6.14
-3	*8.06/*8.06	5.53/*8.06	*6.24/*6.24	3.55/6.24	*4.77/*4.77	2.57/4.68			*4.20/*4.20	2.32/4.19	5.38

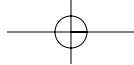
**Feet**

Unit : 1,000 lb

A(ft)	10'		15'		20'		Max. Reach		A(m)
	□	□	□	□	□	□	□	□	
15'					*6.09/*6.09	4.65/*6.09	*3.89/*3.89	*3.89/*3.89	22.01
10'	*15.88/*15.88	13.39/*15.88	*11.48/*11.48	7.11/*11.48	*8.25/*8.25	4.52/7.92	*4.10/*4.10	3.45/*4.10	23.46
5'	*21.82/*21.82	12.27/*21.82	13.51/*13.85	6.71/12.19	8.39/*10.56	4.32/7.73	*4.57/*4.57	3.30/*4.57	23.79
0'	*16.47/*16.47	11.76/*16.47	13.17/*15.10	6.44/11.87	8.24/*11.01	4.22/7.58	*5.43/*5.43	3.41/*5.43	23.03
-5'	*21.13/*21.13	11.70/*21.13	13.05/*14.62	6.35/11.76	8.20/*10.28	4.19/7.55	*7.12/*7.12	3.89/6.99	21.07

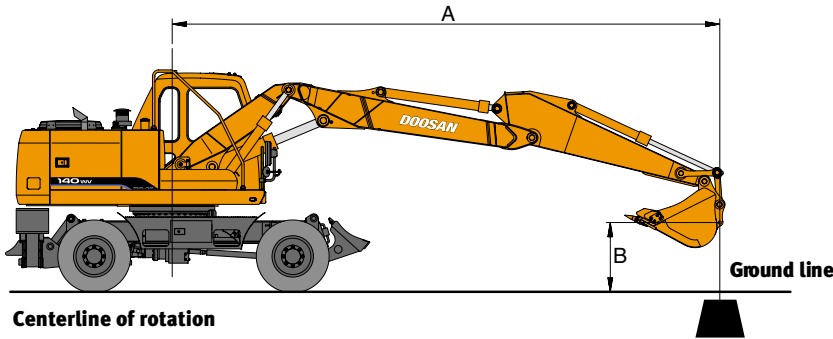
Note 1. Ratings are based on SAE J1097  
 2. The load point is a hook located on the back of the bucket.  
 3. \*Rated loads are based on hydraulic capacity.  
 4. Rated loads do not exceed 87% of hydraulic capacity or 75% of tipping capacity.

□ : Rating over front  
 □ : Rating over side or 360 degree  
 0 : Ground



# Lifting Capacities (Articulated Boom)

## Standard



A : Load radius from centerline of rotation  
B : Load point height

**Front Dozer and Rear Outrigger  
(Free on wheel/Dozer & outrigger on ground)**

**Boom : 4.970 (16'4")**

**Arm : 2.5 (8'2")**

**Counter weight : 2.2 ton (4,629 lb)**

## Metric

Unit : 1,000 kg

A(m)	3		4		5		6		Max. Reach		A(m)
6					*3.10/*3.10	2.69/*3.10	*2.78/*2.78	1.94/*2.78	*1.86/*1.86	1.63/*1.86	6.54
5					*3.33/*3.33	2.64/*3.33	*3.30/*3.30	1.92/*3.30	*1.83/*1.83	1.39/*1.83	7.09
4			*4.14/*4.14	3.66/*4.14	*3.77/*3.77	2.55/*3.77	*3.54/*3.54	1.87/3.39	*1.85/*1.85	1.24/*1.85	7.46
3			*5.16/*5.16	3.44/*5.16	*4.34/*4.34	2.42/*4.34	3.76/*3.87	1.80/3.31	*1.90/*1.90	1.15/*1.90	7.68
2			*6.21/*6.21	3.21/*6.21	4.96/*4.96	2.30/4.32	3.67/*4.25	1.73/3.23	*1.99/*1.99	1.10/*1.99	7.77
1	*4.61/*4.61	*4.61/*4.61	*7.06/*7.06	3.03/6.03	4.82/*5.50	2.19/4.20	3.59/*4.59	1.66/3.15	*2.12/*2.12	1.09/2.12	7.73
0	*5.04/*5.04	4.50/*5.04	6.94/*7.57	2.92/5.89	4.73/*5.88	2.11/4.11	3.53/*4.84	1.61/3.10	*2.32/*2.32	1.12/2.18	7.55
-1	*6.45/*6.45	4.88/*6.45	6.88/*7.74	2.88/5.84	4.68/*6.05	2.07/4.06	3.50/*4.95	1.58/3.07	*2.61/*2.61	1.20/2.32	7.23
-2	*8.62/*8.62	4.51/*8.62	6.88/*7.57	2.88/5.84	4.67/*5.97	2.07/4.05	3.50/*4.84	1.58/3.07	2.94/*3.07	1.34/2.59	6.75
-3	*9.15/*9.15	4.59/*9.15	6.94/*7.02	2.92/5.89	4.71/*5.53	2.10/4.09	3.55/*4.28	1.62/3.12	3.50/*3.89	1.60/3.07	6.06

## Feet

Unit : 1,000 lb

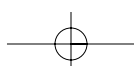
A(ft)	10'		15'		20'		25'		Max. Reach		A(ft)
15'			*7.85/*7.85	6.66/*7.85	*7.45/*7.45	4.08/7.35			*4.04/*4.04	2.90/*4.04	23.83
10'			*10.13/*10.13	6.17/*10.13	8.07/*8.43	3.87/7.13	*4.65/*4.65	2.58/*4.65	*4.18/*4.18	2.54/*4.18	25.18
5'			12.53/*12.65	5.65/10.84	7.80/*9.61	3.64/6.86	5.44/*5.88	2.49/4.81	*4.51/*4.51	2.41/*4.51	25.49
0'	*11.62/*11.62	9.68/*11.62	12.10/*14.33	5.31/10.43	7.59/*10.51	3.46/6.67			*5.11/*5.11	2.47/4.81	24.78
-5'	*16.97/*16.97	*11.96/*16.97	11.96/*14.69	5.19/10.30	7.51/*10.66	3.40/6.59			6.11/*6.23	2.78/5.39	22.97

- Note
1. Ratings are based on SAE J1097
  2. The load point is a hook located on the back of the bucket.
  3. \*Rated loads are based on hydraulic capacity.
  4. Rated loads do not exceed 87% of hydraulic capacity or 75% of tipping capacity.

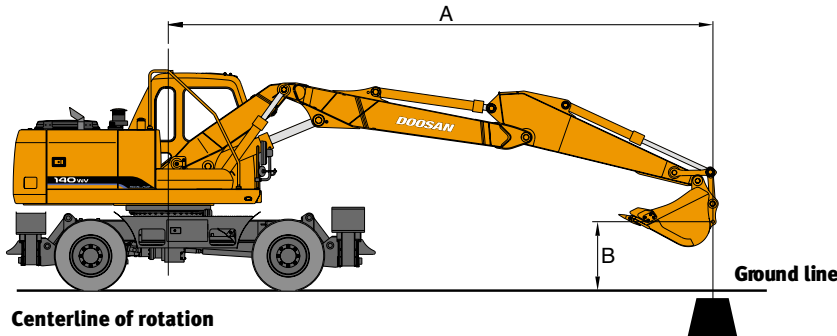
: Rating over front

: Rating over side or 360 degree

0 : Ground



**Option**



A : Load radius from centerline of rotation  
 B : Load point height

**Front Dozer and Rear Outrigger  
 (Free on wheel/Dozer & outrigger on ground)**  
**Boom : 4.970 (16'4")**  
**Arm : 2.5 (8'2")**  
**Counter weight : 1.6 ton (3,527 lb)**

**Metric**

Unit : 1,000 kg

A(m)	3		4		5		6		Max. Reach		A(m)
6					*2.97/*2.97	*2.97/*2.97	*2.57/*2.57	2.20/*2.57	*1.55/*1.55	*1.55/*1.55	6.58
5					*3.27/*3.27	2.99/*3.27	*3.07/*3.07	2.18/*3.07	*1.52/*1.52	*1.52/*1.52	7.13
4			*4.08/*4.08	*4.08/*4.08	*3.70/*3.70	2.89/*3.70	*3.47/*3.47	2.13/*3.47	*1.52/*1.52	1.40/*1.52	7.50
3			*5.08/*5.08	3.90/*5.08	*4.27/*4.27	2.76/*4.27	*3.80/*3.80	2.06/3.69	*1.56/*1.56	1.31/*1.56	7.72
2			*6.13/*6.13	3.65/*6.13	*4.88/*4.88	2.62/4.81	3.94/*4.17	1.98/3.60	*1.63/*1.63	1.26/*1.63	7.81
1	*4.13/*4.13	*4.13/*4.13	*6.96/*6.96	3.46/6.72	5.18/*5.41	2.50/4.68	3.85/*4.51	1.90/3.52	*1.74/*1.74	1.25/*1.74	7.77
0	*4.52/*4.52	*4.52/*4.52	7.45/*7.47	3.34/6.57	5.08/*5.79	2.42/4.58	3.79/*4.76	1.85/3.46	*1.90/*1.90	1.28/*1.90	7.59
-1	*5.81/*5.81	5.11/*5.81	7.38/*7.63	3.29/6.51	5.02/*5.96	2.38/4.53	3.75/*4.86	1.82/3.43	*2.13/*2.13	1.37/*2.13	7.28
-2	*7.79/*7.79	5.15/*7.79	7.38/*7.46	3.29/6.51	5.01/*5.87	2.37/4.52	3.75/*4.75	1.82/3.43	*2.50/*2.50	1.53/*2.50	6.80
-3	*9.02/*9.02	5.23/*9.02	*6.91/*6.91	3.34/6.57	5.05/*5.44	2.40/4.56	3.80/*4.20	1.86/3.48	*3.14/*3.14	1.82/*3.14	6.11

**Feet**

Unit : 1,000 lb

A(ft)	10'		15'		20'		25'		Max. Reach		A(ft)
15'			*7.69/*7.69	7.53/*7.69	*7.12/*7.12	4.64/*7.12			*3.34/*3.34	3.28/*3.34	23.97
10'	*14.34/*14.34	13.15/*14.34	*9.97/*9.97	7.01/*9.97	*8.27/*8.27	4.42/7.94	*4.26/*4.26	2.96/*4.26	*3.44/*3.44	2.89/*3.44	25.32
5'	*11.25/*11.25	*11.25/*11.25	*12.45/*12.45	6.45/12.07	8.37/*9.44	4.17/7.66	*5.42/*5.42	2.87/5.38	*3.70/*3.70	2.75/*3.70	25.62
0'	*10.44/*10.44	*10.44/*10.44	12.99/*14.11	6.08/11.64	8.14/*10.32	3.98/7.44			*4.19/*4.19	2.83/*4.19	24.92
-5'	*15.34/*15.34	11.01/*15.34	12.84/*14.17	5.95/11.49	8.06/*10.47	3.91/7.36			*5.08/*5.08	3.17/*5.08	23.12

Note 1. Ratings are based on SAE J1097  
 2. The load point is a hook located on the back of the bucket.  
 3. \*Rated loads are based on hydraulic capacity.  
 4. Rated loads do not exceed 87% of hydraulic capacity or 75% of tipping capacity.

: Rating over front  
 : Rating over side or 360 degree  
 0 : Ground