

**Wheel Loaders** 

# SD300E/SD300/SD200





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DISD



# **Features of DISD wheel loader**

- Stronger breakout force and tractive force, reflecting excellent performance in a high-load working environment.
- Ideal operating speed and 40<sup>o</sup>steering angle, sharply improving work efficiency.
- · Low-speed engine, saving more fuel for the device.
- · Reasonable matched top-end technology, ensuring a more reliable, durable and efficient device.
- Noise reduction technology in line with international standards, providing operator with physical and mental protection, while bolstering work efficiency.
- Industry leading cooling system, offering a guarantee for continuous and uninterrupted work under high temperatures.
- Streamlined appearance and wide operating room, representing an international brand style.

### SD300E

- · Doosan DEo8TIS engine is mounted. Excellent performance and good quality.
- Smoother gear shift with ZF 4 shift transmission. Very well proven and best quality transmission.
- SD300E has an optional tropical high quality 1 layer aluminum radiator.

# High Efficiency & Super Operating Performances



# Fast Operating Speed Significantly improved work progress, reduced work time, and reached excellent perfectly balanced for optimal work efficiency.

ZF transmission (optional)

Full automatic transmission for streamlined speed change with four forward gears and three backward gears.(SD300E)



SD300E / SD300 / SD200 features powerful performance under poor working conditions with high efficiency and fuel saving operation. Well integrated high quality main components make it possible.

# Tippling load

Tipping load of Doosan equipment greater than products from competitors for realizing stable digging work.



## **Tropical radiator**

Tropical radiator applied to SD300E for allowing operation in tropical zones such as deserts in the Middle East, and keeping its performance high.



# **Features of DISD wheel loader**

Fuel saving and environment friendly low-speed engine, satisfying Tier-II emission standards.

- \* Doosan DEo8TIS engine (SD300E) >
- \* Weichai engine (SD300, SD200) >>



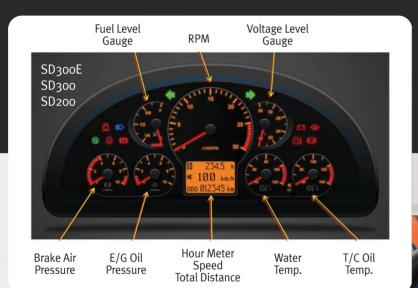


### **Traction force**

Traction force far more excellent than products from competitors allowing exercise of powerful force during operation.



# **Cabin with Ergonomic Design**



and convenience.

New Operator Panel
The instrument panel has been

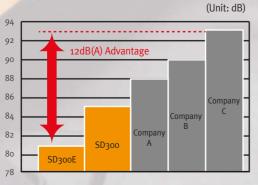
changed to improve operator comfort

# Air Flow Increased by 30%

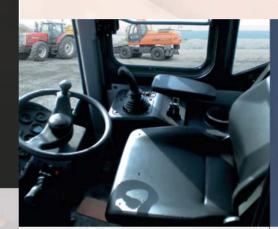
Excellent air-conditioning system and air circulation function as well as perfect defrost system provide operator a more comfortable operating environment and more easy controlling methods to benefit from the above functions.

### **Lower Noise**

Offering a quiet and comfortable working environment and improving efficiency.
(SD300E - Indoor noise levels: 81dB, The noise level of the equipment outside: 112dB)



# (Unit: dB) 92 90 88 6dB(A) Advantage 84 82 SD200 Company A





- Enough space.

Cabin

- Wide visual field.
- Noise inside cabin is lower than comparative units.
- Comfortable operating space.
- Multi-angle adjustable steering wheel.

## **Universal Cabin Features**

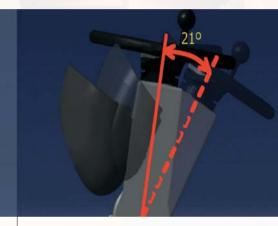
Human oriented design

Rear Wiper In case of rain,

rear visibility.
(SD300E only)

a lot of dust in the work environment, improving

- High grade appearance of international standards.
- Wide operating space with low noise.



# Adjustable Steering Wheel

Complying with ergonomic principles Adjusting angle.

- Backward: 21°

Sight in order to improve the design part



### **Preheat**

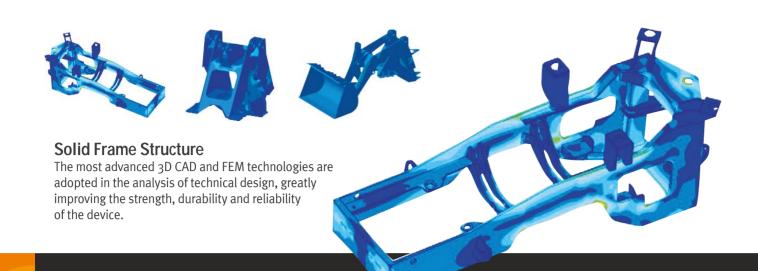
A starter designed for the actuation at low temperature in winter with mighty battery capacity, resolves starting difficulties at low temperature with one key.

### Easy Controlled Rocker Switches

All the switches are arranged in concentrated and combined ways, easy to operate, and complying with ergonomic principles.

### **High-quality Sound System**

Relieving long time operating fatigue, equipped with USB port which can be connected with MP3 music player or mobile phone charging device.



# Reliability

The highly reliable components and anti-abrasive material not only improved the durability of the device, but also enhanced its work efficiency and extended its service life.

(Well proven, high quality Doosan engine DEo8TIS / World best quality ZF transmission (optional) / High quality DISD transmission (optional) / Well proven, high quality DISD axle / Reliabile 1 layer aluminium radiator / Embedded rear lamp)

# Transmission Shaft: Double Bearing Drive Shaft (SD300F, SD300) Double bearing supporting propeller shaft in dual configuration for improving reliability of propeller shaft. Lubricating oil can be infused easily, enhancing the durability of the transmission shaft.

### **Aluminum Radiator**

Aluminum radiator is stronger and better in quality than copper radiator. Aluminum radiator enhances reliability of the machines.



# Improved Quality & Reliability Doosan engine (SD300E)

- Doosan engine with well proven and stable quality provides high reliability and quality of the wheel loader.
- Doosan in house engine ensures faster and stable engine parts supply and reduces down time.



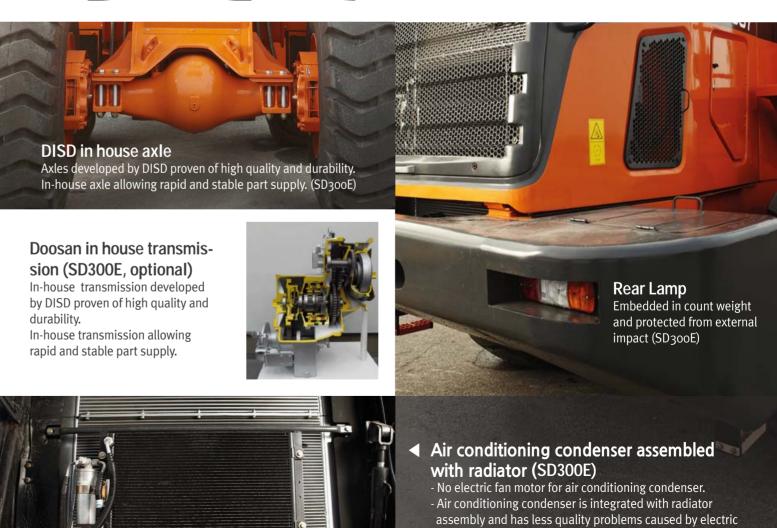


# ZF transmission (SD300E optional)

Transmission from ZF featuring stable quality and reliability for enhancing reliability of power train.

## Durability

SD300E / SD300 / SD200's working attachments and articulated pin are matched properly in size so as to position the force bearing area accordingly, increase diameters of the boom pin roll and front and back frame articulated pin roll, as well as enhance durability.

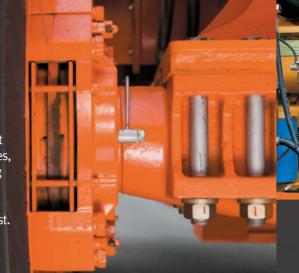


# Convenient Top-end Maintenance Management System



## Quickly Changeable Brake Disc

Brake disc can be replaced quickly and easily without disassembling tires, deeply shortening the maintenance time and saving time and labor cost.



# High Efficiency Cooling Fan

The cooling fan of non-isometric blades can reduce noise and increase air flow.

# Maintenance

The replacement cycle of vulnerable parts are substantially extended. Spacious maintenance space makes the maintenance work done more quickly and conveniently.

# Easy and Quick Adjustable Maintenance Window The 180°side-opened maintenance window provides a quick

and direct view for inspection, largely saving daily monitoring and maintenance time.

# Full Tilting of Engine Cover

With this one body engine cover, it is easy to repair engine and sub parts.

### Inspection for High/Low Hydraulic Oil Level

Used to monitor the hydraulic oil level more easily to reduce maintenance time, improving device service lifetime.



# **Outdoor Power switch** Used to cut off battery power when necessary to enhance maintenance safety and convenience while protecting the battery and extending battery life when the device is parked for a long time. (SD300E, SD300, SD200)



# Technical Specifications

		ENGINE SYST	EM	
		SD300E	SD300	SD200
	MAKER & MODEL	Doosan DEo8TIS	Wei chai WD10G220E23	Wei chai WP6G125E22
	RATED HORSE POWER	160 kW/2000 rpm	162 Kw/2000 rpm	92 Kw/2200 rpm
	MAX.TORQUE	902 N.m/1300 rpm	900 N.m/13000~1500 rpm	500 N.m/1400~1500 rpm
	FUEL COMSUMPTION	215 g/kw.h @ RATED SPEED	225 g/kw.h @ RATED SPEED	215 g/kw.h @ RATED SPEED
	TYPE	TURBO, DIRECT INJECTION	TURBO, DIRECT INJECTION	TURBO, DIRECT INJECTION
ENGINE	DISPLACEMENT	8071 CC	9726 cc	6754 cc
	NO.OF CYLINDER	6	←	←
	BORE & STROKE	111 X 139 (mm)	126 X 130 (mm)	105 X 130 (mm)
	HIGH IDLE SPEED	2200±50 rpm	2150~2200 rpm	2376~2464 rpm
	LOW IDLE SPEED	800±25 rpm	750±20 rpm	750±50 rpm
	STARTING MOTOR	24V X 6 kw	24V X 7.5 kw	24V X 6 kw
	VOLTAGE	28 V	←	←
ALTERNATOR	RATING AMPERES	60 A	55 A	55 A
	SYSTEM VOLTAGE	24 V	←	←
BATTERY	QUANTITY	12 V X 2	←	←
	CAPACITY (AMP)	120 AH	120 AH	100 AH
	TYPE	DRY, DOUBLE ELEMENT	DRY, DOUBLE ELEMENT	DRY, DOUBLE ELEMENT
AIR CLEANER	FILTRATION AREA	9.5 m2 (MAIN), 1.7 m2 (STEER)	6.5 m2 (MAIN), 1.5 m2 (STEER)	5.4 m2 (MAIN), 0.93 m2 (STEER)
	SIZE (DIA. X LENGTH)	Ф 276 mm X 500 mm	Ф259.5 mm X 400 mm	Ф215 mm X 395 mm
MUEELED	DESCRIPTION	SIDE INLET, VERTICAL TAIL PIPE	SIDE INLET, VERTICAL TAIL PIPE	SIDE INLET, VERTICAL TAIL PIPE
MUFFLER	SIZE	φ 280 mm X 780 mm	ф246mm X 485 mm	ф200 mm X 440 mm
	TYPE	INDUCED DRAFT, 8 BLADES, PLASTIC	BLOWING , 7 BLADE, STEEL	BLOWING , 6 BLADE, STEEL
FAN	SIZE	Ф 860 mm	Ф 760 mm	Ф600 mm
	RPM @ MAX ENGINE RPM	1500 rpm	1800 rpm	1800 rpm
RADIATOR	TYPE (HEAT REJECTION AREA)	FLAT PLATE FIN, AIR COOL	FLAT PLATE FIN, AIR COOL	FLAT PLATE FIN, AIR COOL
TRANSMISSION OIL COOLER	TYPE (HEAT REJECTION AREA)	PLATE, AIR COOL	PLATE, AIR COOL	PLATE, AIR COOL
HYDRAULIC OIL COOLER	TYPE (HEAT REJECTION AREA)	PLATE, AIR COOL	PLATE, AIR COOL	PLATE, AIR COOL
AIR COOLER	TYPE (HEAT REJECTION AREA)	PLATE, AIR COOL		

		DRIVE MECHA	NISM		
		SD300E	SD300	SD200	
	ТҮРЕ	4 SPEEDS, POWER-SHIFT, COUNTERSHAFT	2 SPEED, POWER-SHIFT, PLANETRARY	4 SPEED, POWER-SHIFT, COUNTERSHAFT	
	TORQUE CONVERTER STALL RATIO	2.142	3.907	3.25	
	TORQUE CONVERTER SIZE CHARGING PUMP FLOW	340mm 80 l/min at 2000 rpm	315mm 100 l/min at 2000 rpm	315mm 60 l/min at 2000 rpm	
	HYDRAULIC PUMP P.T.O RATIO	1.111/1	0.8667/1.022	1.06	
TRANSMISSION	POWER SHIFT CONTROL PRESSURE	1.1-1.5MPa	1.1-1.4MPa	1.1-1.5MPa	
	CONVERTER SAFETY RELIEF PRESSURE	4.9 bar	10.8 bar	4.9 bar	
	MAX. ROTATING SPEED	2500 rpm	2350 rpm	2500 rpm	
	SHIFT CONTROL	ELECTRONIC TYPE	MECHANICAL TYPE	MECHANICAL TYPE	
	OUTPUT FLANGE	FRONT DISC FLANGE REAR DISC FLANGE	FRONT - 9C MECHANICS REAR - 7C MECHANICS	FRONT DISC FLANGE REAR DISC FLANGE	
	ТҮРЕ	FULLY FLOATING PLANETARY- TYPE HUB DRIVE FIXED MOUNTING	←	←	
	OVERALL REDUCTION RATIO	22.85	22.853	20.26	
	AXLE LOAD (SINGLE CONDITION)	9400kg	9200kg	5500 kg	
AXLE	AXLE LOAD (BREAKOUT CONDITION)	27,000kg	27,000 kg	18,500 kg	
	WHEEL BOLT P.C.D	Ф 475 mm	Φ475 mm	Ф404 mm	
	BRAKE TYPE	DRY DISC	←	←	
	BRAKE TORQUE per WHEEL	13050 N.m	13050 N.m	9660 <b>N.</b> m	
	DRIVE FLANGE	Front: 9C MECHANICS Rear: 7C MECHANICS	←	DISC MECHANICS	
	ТҮРЕ	TUBE Type	←	TUBE Type	
TIDE O WILIFFI	TYPE SPEC.	23.5 -25-16PR	←	17.5 -25-12 PR	
TIRE & WHEEL	RIM SPEC.	19.5/2.5-25	←	14.0/1.5- 25	
	DISC OFFSET	206 mm	←	←	
	MAX. SPEED	38.0 KPH	←	←	
TRAVELLING	MAX. TRACTIVE EFFORT	17 TON	16 TON	9 TON	
PERFORMANCE	GRADEABILITY	30° (58%)	←	←	

# Technical Specifications

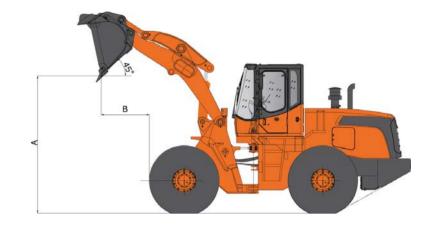
		BRAKE SYST	EM	
		SD300E	SD300	SD200
BRAKE PUMP	TYPE MAX. SUPPLY FLOW	PISTION AIR 145 l/min	<b>←</b>	<b>←</b> -
SERVICE BRAKE VALVE (SINGLE)	BRAKE PRESSURE AIR BRAKE PRESSURE OIL PEDAL FORCE	7.7 bar		←
PARKING BRAKE	TYPE  MAX. PARKING TORQUE	SPRING-APPLIED AIR RELEASED SLIDING CALIPER DISC BRAKE 1594 Nm	1550 Nm	← 907 Nm
SYSTEM & PRESSURE	SYSTEM  SERVICE BRAKE PRESSURE AIR  SERVICE BRAKE PRESSURE OIL  PARKING BRAKE RELESE PRESSURE  BRAKE DISTANCE	AIR PUSH HYDRAULIC, SINGLE LINE 7.7 bar 137 bar 3.9 bar 6.5 m at 38kph	← ← ← ← 8.7 m at 32kph	← ← ← 6.5 m at 32kph

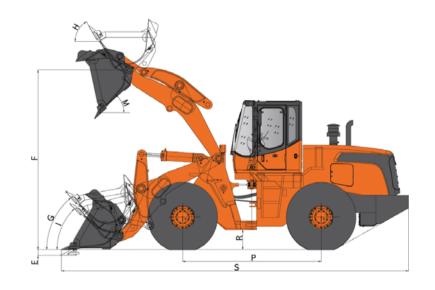
		STEERING SYS	STEM	
		SD300E	SD300	SD200
PUMP	TYPE DISPLACEMENT CONSTANT FLOW	GEAR 81.68 cc/rev 152 l/min	← 80 cc/rev 145 l/min	· .
STEERING UNIT	TYPE DISPLACEMENT	Coaxial Flow Amplifying 1000 cc/rev	<b>←</b>	Load Sensing 630 cc/rev
	ТУРЕ	CONTAINS A SEQUENTIAL VALVE, PRIORITY VALVE, PRESSURE RELIEF VALVE	<b>←</b>	CONTAINS A SEQUENTIAL VALVE, PRIORITY VALVE
	CONTROL PRESSURE	11 bar	←	7 bar
PRIORITY VALVE	LS RELIEF VALVE SETTING	137 bar	←	<b>←</b>
	SEQUENTIAL RELIEF VALVE	137 bar	←	←
	MAX OIL FLOW TO STEERING	160 L/min	←	250 L/min

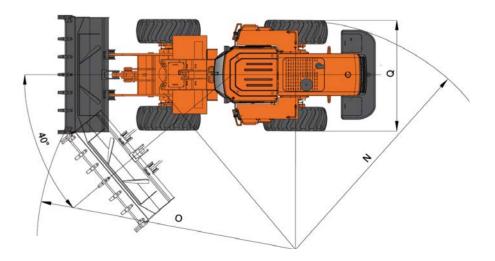
		HYDRAULIC SYS	STEM		
		SD300E	SD300	SD200	
MAIN PUMP	TYPE DISPLACEMENT MAX. FLOW RATE TANK PRESSURIZING DEVICE	FIXED GEAR  104.9 cc/rev  206 l/min  SEMI PRESSURISED (AIR BREATHER)	FIXED GEAR  100 cc/rev  215 l/min  ←	FIXED GEAR  100 cc/rev  205 l/min  ←	
STEERING & PILOT PUMP	TYPE  DISPLACEMENT (STEER/PILOT)  MAX.FLOW RATE (STEER/PILOT)	TANDEM, FIXED GEAR 81.68 / 21.14 cc/rev 152 / 39 l/min	221.14 cc/rev 80 / 10 cc/rev 10 c 19 l/min 145 / 19 l/min 19 l		
CONTROL VALVE	TYPE  NO. OF SPOOLS  SPOOL ARRANGEMENT  RELIEF VALVE PRESSURE  OVERLOAD RELIEF VALVE PRESS	PILOT CONTROL WITH FLOAT SPOOL  2  BUCKET - LOADER ARM  167 bar  186 bar	← ← ←	← ← ←	
REMOTE CONTROL VALVE	TYPE  PRESSURE/STROKE CHARACTER	PILOT OPERATED MONO LEVER WITH MAGNETIC COILS (DETENT COILS - ARM RAISE /FLOAT, BUCKET CROWD) 25 bar @ 14 mm STROKE	←	←	
PILOT SUPPLY VALVE	PILOT RELIEF PRESSURE	35 bar	25 bar	25 bar	
RESTRICTION VALVE	CRAKING PRESSURE	29 bar	25 bar	29 bar	
AIR BREATHER	CRACKING PRESSURE	-4.9/34 KPa	←	←	
ACCUMULATOR; BRAKE	CHARGE PRESSURE VOLUME	7.7 bar 34 L	← ←	<b>←</b>	

# Dimension & Working ranges

Bucket type				Gener	al purpos	е		Liç	ght materi	ial	Heavy	duty		High lift	
Configuration	Code	Unit	SD300E	Teeth(Std) SD300	SD200	Tee SD300E	th SD300	SD300E	SD300	SD200	Rock SD300E	teeth SD300	SD300E	SD300	SD200
Capacity heaped ISO/SAE		m3	3	3	1.7	2.7	2.7	4	4	2.2	2.7	2.7	2.7	2.7	1.7
		yd3	3.9	3.9	2.2	3.5	3.5	5.2	5.2	2.9	3.5	3.5	3.5	3.5	2,2
Operating weight		kg	17,300	16,850	10,400	17,250	16,800	17,500	17,020	10,460	17,600	17,130	17,400	17,100	10,420
		lb	38,140	37,148	22,928	38,030	37,038	38,581	37,523	23,060	38,801	37,765	38,360	37,699	22,972
Bucket width		mm	2,992	2,992	2,506	2992	2,992	3,092	3,092	2,506	2,960	2,960	2,992	2,992	2,506
		ft in	9'9"	9'9"	8'2"	9'9"	9'9"	10'1"	10'1"	8'2"	9'8"	9'8"	9'9"	9'9"	8'2"
Breakout force		kN	161	161	96	161	161	132	132	92			150	94	
Charles the size of the size has		lbf	36,194	36,194	21,582	36194	36,194	29,675	29,675	20,682	36,194	36,194	33,721	33,721	21,132
Static tipping load (straight)		kg	13,300	11,800	8,000	13,300	11,800	12,618	11,730	7,580			9,670	7,850	
Statia tinning load (at 400)		lb	29,322	26,015	17,637	29,322	26,015	27,818	25,860	16,711	27,587	25,728	27,518	21,319	17,306
Static tipping load (at 40°)		kg Ib	11,300	10,400	6,400	11,300	10,400	10,978	10,330	6,064	10,887	10,280	10,860	8,520	6,280
Dump height (at 45°) 1)	Α	mm	24,912 3,085	22,928	14,110 2,800	24,912 3,085	22,928	24,203	22,774	13,369 2,780	24,001	22,663	23,942 3,384	18,783	13,845
(at fully raised)	^	ft in	10'1"	3,127 10'3"	9'2	10'1"	3,127 10'3"	3,012 9'11"	3,092 10'1"	2,760 9'1"	3,097 10'2"	3,097 10'2"	3,304 11 <sup>1</sup> 12"	3,320 10'10"	3,110 10'2"
Dump reach (at 45°) 1)	В	mm	1,297	1,215	1,170	1,297	1,215	1,246	1,237	1,200	1,235	1,235	1,366	1,340	1,065
(at fully raised)		ft in	4'3"	3'11"	3'10"	4'3"	3'11"	4'1"	4 <sup>1</sup>	3'11"	4 <sup>'</sup>	4'	4'6"	4'4"	3'6"
Digging depth	E	mm	120	105	50	120	105	90	105	50	105	105	155	155	75
2.999 40p	_	ft in	5"	4"	2"	5"	4"	3"	4"	2"	4"	4"	6"	6"	3"
Height at bucket pivot point	F	mm	4,150	4,150	3,740	4,150	4,150	4,150	4,150	3,740	4,150	4,150	4,450	4,410	4,030
<del>g</del>		ftin	13'7"	13'7"	12'3"	13'7"	13'7"	13'7"	13'7"	12'3"	13'7"	13'7"	14'7"	14'5"	13'2"
Max. tilt angle at carry position	G	Deg	50	50	50	50	50	50	50	50	50	50	50	51	50
Max. tilt angle at fully raised	Н	Deg	59	60	60	59	60	59	60	60	60	60	59	60	60
Max. tilt angle at ground	I	Deg	45	45	45	45	45	45	45	45	45	45	45	45	45
Max. dump angle at fully raised	М	Deg	49	48	45	49	48	49	48	45	48	48	49	49	45
External radius at tire side	N	mm	5,800	5,900	5,250	5,800	5,900	5,800	5,900	5,250	5,900	5,900	5,800	5,900	5,250
		ft in	19'	19'4"	17'2"	19'	19'4"	19'	19'4"	17'2"	19'4"	19'4"	19'	19'4"	17'2"
External radius at bucket edge	0	mm	6,510	6,510	5,710	6,510	6,510	6,560	6,560	5,750	6,550	6,550	6,790	6,790	5,870
		ft in	21'4"	21'4"	18'8"	21'4"	21'4"	21'6"	21'6"	18'10"	21'5"	21'5"	22'3"	22'3"	19'3"
Wheel base	P	mm	3,200	3,200	2,850	3,200	3,200	3,200	3,200	2,850	3,200	3,200	3200	3,200	2,850
		ft in	10'6"	10'6"	9'4"	10'6"	10'6"	10'6"	10'6"	9'4"	10'6"	10'6"	10'6"	10'6"	9'4"
Width at tires	Q	mm	2,750	2,840	2,290	2,750	2,840	2,750	2,840	2,290	2,750	2,840	2,750	2,840	2,290
		ft in	9'2"	9'4"	7'6"	9'2"	9'4"	9'2"	9'4"	7'6"	9'2"	9'4"	9'2"	9'4"	7'6"
Tread		mm	2,150	2,240	1,840	2,150	2,240	2,150	2,240	1,840	2150	2,240	2,150	2,240	1,840
		ft in	7'1"	7'4"	6'	7'1"	7'4"	7'1"	7'4"	6'	7'1"	7'4"	7'1"	7'4"	6'
Ground clearance	R	mm	420	450	340	420	450	420	450	340	420	450	420	450	340
		ftin	1'5"	1'5"	1'1"	1'5"	1'5"	1'5"	1'5"	1'1"	1'5"	1'5"	1'5"	1'5"	1'1"
Overall length	S	mm	8,260	8,080	6,900	8,260	8,080	8,287	8,130	6,940	8,120	8,120	8,625	8,360	7,060
		ft in	27'1"	26'6"	22'7"	27'1"	26'6"	27'2"	26'8"	22'9"	26'7"	26'7"	28'4"	27'5"	23'2"
Overall height		mm	3,450	3,470	3,280	3,450	3,470	3,450	3,470	3,280	3,450	3,470	3,450	3,470	3,280
		ft in	11'4"	11'4"	10'9"	11'4"	11'4"	11'4"	11'4"	10'9"	11'4"	11'4"	11'4"	11'4"	10'9"







<sup>1)</sup> Measured to the tip of the bucket teeth or bolt-on edge.

# **Optional Equipments**

Cl	assification	SD300E	SD300	SD200	Remarks
	1.7m3 – General Purpose	Х	Х	•	
	2.2m3 – Light material	Х	Х	•	
	2.7m3 – General Purpose	•	•	Χ	
Develope	3.om3 – General Purpose			Χ	
Bucket	2.9m3 – Cutting Edge	•	•	Χ	
	3.2m3 – Cutting Edge	•	•	Χ	
	2.7m3 – Rock Version	•	•	Х	
	4.om3 – Light Material	•	•	Х	
Work lover	Mono lever				4
Work lever	Two lever	•	•	•	
	Xulun	X	X		17.5-25-12PR
Tire	Xulun			X	23.5-25-16PR
(Tube type)	Feng Shen	•	•	Х	For Desert, 23.5-35-16PR
	Triangle	•	•	Х	23.5-25-16PR
	Xulun	•	•	Х	23.5-25-16PR
Tire beless type)	Triangle	•	•	Х	23.5-25-16PR
aboloss type)	Triangle, Radial	•	•	Х	23.5R25
	Standard				
Front	High Lift (Long Boom)	•	•	•	Equipped with 2.7m3 bucket on a 5 ton long boom 3.0m3 / 4.0m3 bucket available only for the coal digging bucket.(For SD300E/ SD300)
	LZ ZF - F4 / R3		Χ	Х	
T/M	DISD - F2 / R1	•	Х	Х	
1 / IVI	Hangchi	Х		Х	
	Jingyi	Х	Х		
olina	STD				
Cooling	Tropical Specification	•	Х	Х	and a second
Cahin	General grass				
Cabin	Tinted Glass	•	•	•	