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SUNWARD

SD220Y-1 / SD220YS BULLDOZER



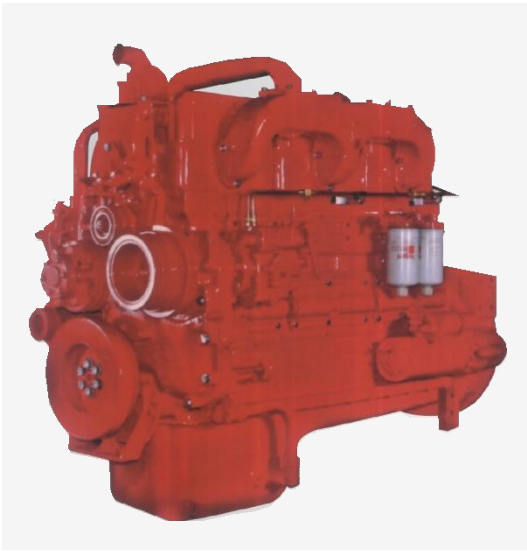
MAIN FEATURES

- The machine features reasonable layout, excellent performance and advanced technology.
- Higher engine power reserves efficiency, bigger torque output, lower fuel consumption, while better reliability.
- Hydraulically controlled drive, automatically speed regulating and non-stop gear shifting.
- The final drive uses triangle Spline and tip relief, crowned gear drive to enhance the balance and the stability of the load of transmission Part.
- The novel hexahedral cab offers excellent visibility, the powerful ventilation and unparalleled dust-free.

Engine	Rated Power	Weight (SD220Y-1)	Weight (SD220YS)
NT855-C280 CUMMINS	175kW	24100kg	25700kg



Professional Power, Best Quality



NT855-C280

- Pulse exhaust manifold for improving performance and emission.
- With a high torque reserve and a low speed under the maximum torque condition for a good adaptation.
- High quality cast iron and special designed valve guide for the seal performance and durability.
- Robust and precise balance design for crankshaft.
- Advanced turbocharger and water cooler technology.
- 4 valves per cylinder for high power and low fuel consumption.

Gearbox

Hydraulic controlled gearshift is realized by operating the control valve, and without having to stop the machine, when operated with the torque converter to save operator effort. The transmission is combined with four planets lines and a rotary lock-up clutch, multiple disc clutch, hydraulic controlled release, forced lubrication, with 3 speeds forward and 3 speeds backward.



Torque Converter

The hydraulic torque converter for is a newly developed product with the improvement made to the material, process and layout based on introduced Japan KOMATSU technology. It features simple architecture, easy maintenance, low noise, excellent reliability, stepless speed regulating which ensure perfect match to the machine for an outstanding traction and a stable transmission.

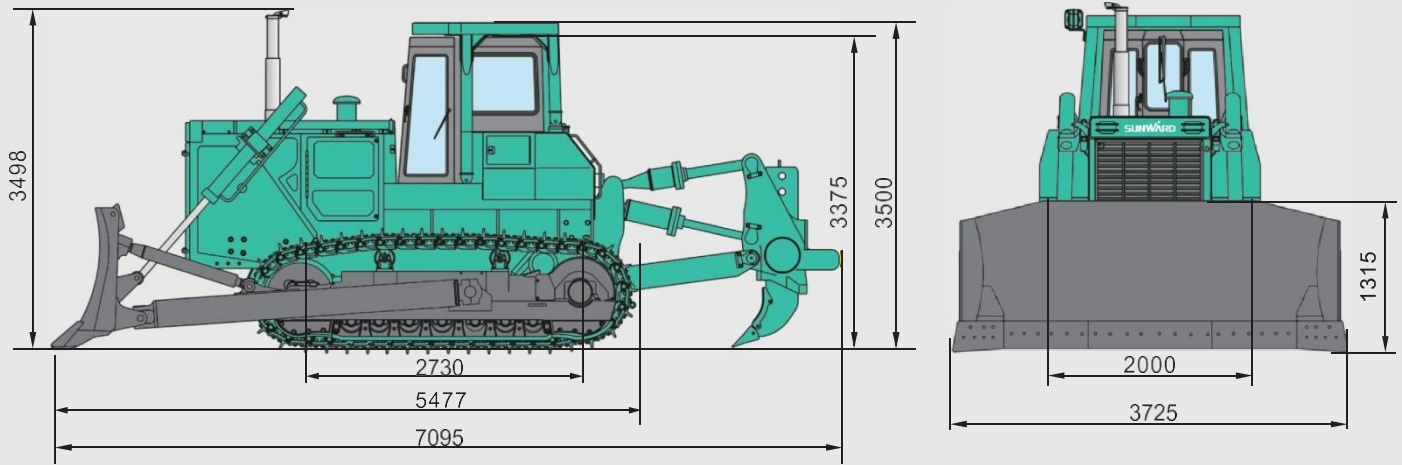


Final Drive

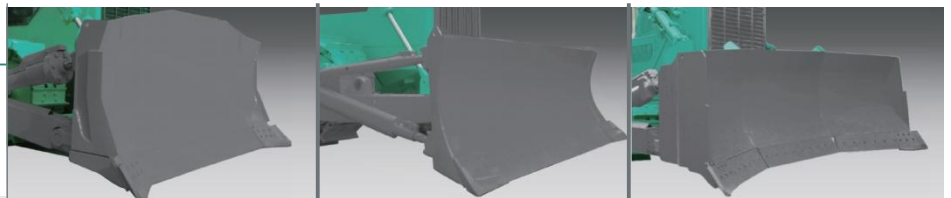
The final drive uses triangle Spline and tip relief, crowned gear drive for enhanced balance and the stability during power transmission, lower noise, excellent reliability and added life.



SD220Y-1



Work Equipment



Blade Type	Straight Tilt Blade	Angle	U dozer
Width Height (mm)	3725 x 1315	4365 x 1055	3684 x 1255
Max.Lift above Ground (mm)	1210	1210	1210
Max.Drop below Ground (mm)	540	535	540
Pitch Adjustment (°)	55	55	55
Max. Tilt (mm)	735	/	735
Blade Capacity (m ³)	6.4	4.7	6.5

Ripper



Type	Single Ripper	3-Shank Ripper
Max. dig below ground (mm)	666	666
Max. lift above ground (mm)	598	555
Weight (kg)	2572	2570

Engine	
Model	NT855-C280
Type	Straight vertical, four-stroke, water-cooling, PT pump injection, turbocharged
Rated Power (kW)	175
Rated speed (r/min)	1800
Number of Cylinders-bore x Stroke (mm)	6 - Φ 139.7 x 152.4
Starting Method	Starting motor 24V 11kW
Battery	24V (12V x 2)
Air Cleaner	Dry horizontal type with precleaner
Min Fuel Consumption Ratio(min)	212

Transmission	
Torque Converter	3-element, single-stage, single-phase
Gearbox	Planetary gear, multiple-disc clutch, hydraulic actuated, forced lubrication by gear pump, 3 forward and 3 reverse speeds
Bevel Gear	Helical bevel gear, Splash lubricated
Steering Clutch	Wet, Multiple-disc clutch, spring loaded, hydraulically released
Steering Brake	Wet, band brake, operated with hydraulic booster and valve inner linkage
Final Drive	Spur gear, double reduction, splash lubricated

Hydraulic System of Work Equipment	
Working Pressure (Mpa)	13.7
Rated Flow (L/min) (2000r/min)	257
Pump	CBT3160 gear pump
Control Valve	Hand-operated plunger servo controlling
Cylinder, Bore x Rod x Stroke (mm)	Φ 120 x Φ 70 x 1043

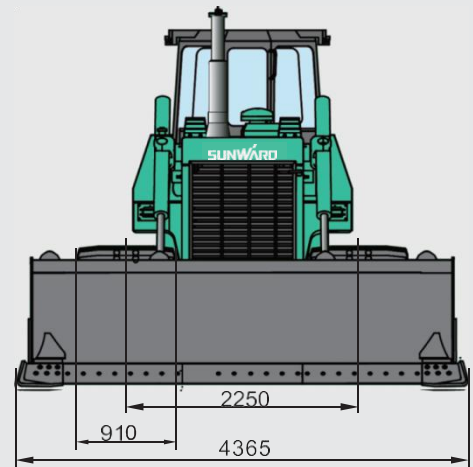
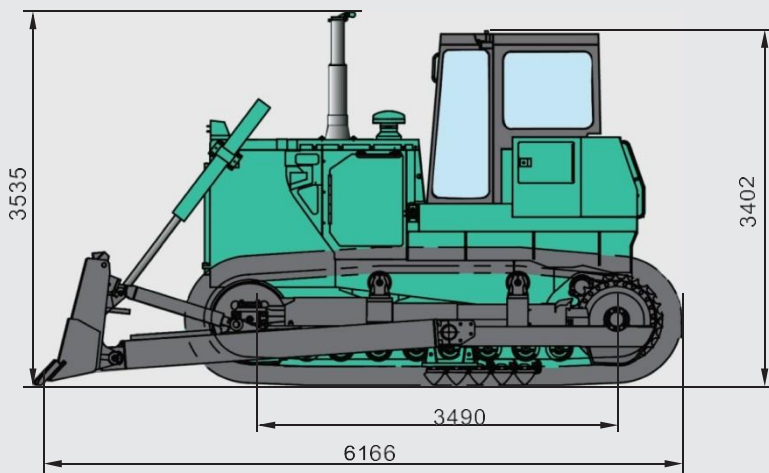
Track	
Type	Sealed, Single grouser
Track Pitch (mm)	216
Track Width (mm)	560
Number of Track Shoes(each side)	38
Length of Track on Ground (mm)	2730
Track Gauge (mm)	2000

Travel Speed (km/h)			
	1st	2nd	3rd
Forward	3.6	6.5	11.2
Reverse	4.3	7.7	13.2

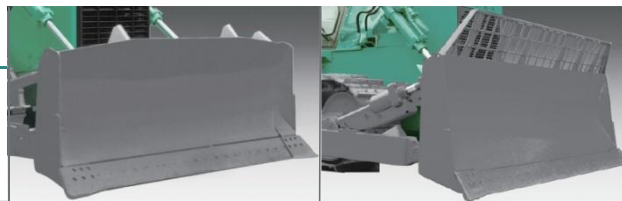
Under Carriage	
Sprocket	Segmented
No. of Carrier Roller (each side)	2
No. of Track Rollers (each side)	6 (4 Single, 2 Double)
Track Tension	Hydraulic-adjusted

Floating seals are used in all sprockets, track rollers, carrier rollers and front idlers

SD220YS



Work Equipment



	Straight Tilt Blade	Dozer for Garbage
Blade Type	Straight Tilt Blade	Dozer for Garbage
Width x Height (mm)	4365x1230	4365x1818
Max.Lift above Ground (mm)	1650	1350
Max.Drop below Ground (mm)	500	500
Pitch Adjustment (°)	53.5	53.5
Max. Tilt (mm)	530	530
Blade Capacity (m ³)	6.6	11.7

Hydraulic System of Work Equipment

Working Pressure (Mpa)	13.7
Rated Flow (L/min) (2000r/min)	257
Pump	CBT3160 gear pump
Control Valve	Hand-operated, plunger servo controlling
Cylinder, Bore x Rod x Stroke (mm)	Φ120 x Φ70 x 1293

Engine

Model	NT855-C280
Type	Straight vertical, four-stroke, water-cooling, PT pump injection, turbocharged
Rated Power (kW)	175
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Transmission

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Gearbox	Planetary gear, multiple-disc clutch, hydraulic actuated, forced lubrication by gear pump, 3 forward and 3 reverse speeds
Bevel Gear	Helical bevel gear, Splash lubricated
Steering Clutch	Wet, Multiple-disc clutch, spring loaded, hydraulically released
Steering Brake	Wet, band brake, operated with hydraulic booster and valve inner linkage
Final Drive	Spur gear, double reduction, splash lubricated

Under Carriage

Sprocket	Segmented
No. of Carrier Roller (each side)	2
No. of Track Rollers (each side)	8 (5 Single, 3 Double)
Track Tension	Hydraulic-adjusted

Floating seals are used in all sprockets, track rollers, carrier rollers and front idlers

Track

Type	Swamp-type track shoe
	216
	910
Number of Track Shoes(each side)	45
Length of Track on Ground (mm)	3490
	2250

Travel Speed (km/h)

	1st	2nd	3rd
Forward	3.6	6.5	11.2
Reverse	4.3	7.7	13.2





Sunward intelligent equipment group was founded in 1999 under the leadership of Professor He Qinghua of Central South University. It started with a revolutionary and innovative product - Hydrostatic pile driver, Now it has developed into a listed company - Sunward Intelligent Equipment Co., Ltd. as the core (Stock Code: 002097), an international enterprise group with Changsha as its headquarters and certain influence at home and abroad. With total assets of 18 billion yuan, the company is one of the leading enterprises of underground engineering equipment in China, one of the top 50 global construction machinery manufacturers, the top 20 world excavator enterprises and the top 3 global regional aircraft leasing enterprises.

In accordance with the company's policy of continuous product improvement, we reserve the right to change the parameters and design without prior notice to end-user. The illustrations in the product manual are not necessarily the standard style of the equipment, and Sunward intelligent equipment group reserves the right of final interpretation.

SUNWARD

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