

LET'S MAKE CONSTRUCTION EASIER

GROUP PRODUCTS



SHANTUI CONSTRUCTION MACHINERY CO., LTD.

ADD: No. 58, G327 Highway Jining City, Shandong, CHINA
TEL: +86-537-2909369
FAX: +86-537-2311219
EMAIL: trade@shantui.com
WEB: www.shantui.com

SHANTUI
LET'S MAKE CONSTRUCTION EASIER

SHANTUI

SD22 SERIES
Crawler Dozer



Engine Model: CUMMINS NT855-C280S10
Gross Power: 175KW(235HP)@1800RPM
Operating Weight: RS: 23,450kg

Linde Hydrostatic Travel Drive
electronically controlled

| 220HP Bulldozer Series

SD22 SERIES

SD22 series bulldozer adopts Shantui’s patented technologies, including central lubrication, central pressure measurement, and automatic track tensioning technologies, and won the sole national golden quality award in China’s bulldozer industry. With multiple working devices and cabs, this product can meet the operation demands for diversified working conditions and is an ideal high-efficiency machine for earth-moving operations and bulk material handling.

- * Chongqing NT855-C280S10 engine features strong power and high efficiency and energy-saving.
- * The high reliability power shift transmission, the stable hydraulic torque converter, and two-stage spur gear final drive feature high power transmission efficiency.
- * The engine can run normally and reliably under all load conditions and all hot environments required by the user, without overheating.
- * It can realize the automatic diagnosis and whole-process monitoring of the malfunctions. The integrally injection molded instrument panel integrates the A/C, electric devices, and instruments, featuring beautiful appearance and high grade.
- * The full box-type main frame with application of high performance materials and high strength castings features high carrying capacity against impact load and bending moment and the high quality welds guarantee the life cycle of the main frame.
- * The semi-rigid suspension traveling system increases the ground area of tracks and improves the traction force of vehicle.
- * The ergonomically designed driver seat and armrests can be adjusted easily in vertical and longitudinal directions. The gearshift, steering, and accelerator controls are arranged on the left side with the adoption of flexible shaft structure. The working device controls are arranged on the right side with adoption of servo control system to achieve lighter and more flexible operations and relieve the operating fatigue.
- * The standard straight tilting blade features powerful cutting force to handle diversified severe working environments and the large single-shank ripper of adjustable penetrating angle can be used for the ripping of clay and frozen earth as well as the stripping of hard working faces, such as gravel and hardened salt mine.



Performance Parameters:

Length × Width × Height (mm) (excluding ripper): 5495×3725×3745
Operating Weight (t) (excluding ripper): 23.4
Engine Model: Weichai WD12G240E206/ Cummins NT855-C280S10
Net Power/Rated Speed (kW/rpm): 162/1800
Ground Pressure(Mpa): 0.077
Blade Type: Straight tilting blade Angle blade U blade Semi-U blade
Blade Capacity: 6.4 for straight tilting blade 4.7 for angle blade 7.5 for U blade 7.0 for Semi-U blade
Applicable Working Conditions: Bulldozing, digging, landfill, and other bulk operations.



220HP Bulldozer Series

Power system

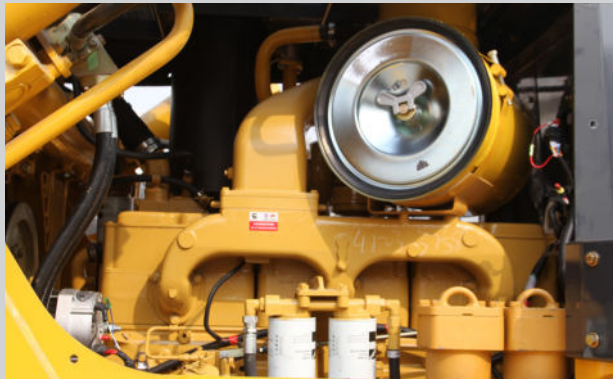
Chongqing Cummins NT855-C280S10 engines feature the high power, efficiency and energy saving.

* The effective supercharger not only improves and widens the effective zones of engine, but also drops the fuel consumption by 12-21g/ kW. H.

* The advanced lubrication system could enable the engine parts to work under the constant oil temperature, the low oil pressure and the varied flow, reducing the engine friction power and thus prolonging the engine service life.

* The strength material and the newly-structured cylinder body and cylinder cover make the engine more reliable and energy-saving and then realize the sufficient combustion and the lower emission within the wide range of RPM and load.

Drive system



The reliable power-shift transmission, the steady hydraulic torque converter and the stage-II spur-tooth final drive could perform the effective power output and produce the high efficiency.

* Planetary gear type transmission with power shift features the compact structure, steady engagement and high drive efficiency.

☑ YJ409B hydraulic torque converter has the circular cycle diameter of 409mm, 0.87 of high efficiency, simple structure such as monopole, single phase and three-element, and wide RPM range in high efficiency area.

Chassis system

* The semi-rigid suspension and travel system with the track rollers always in touch with the track could enlarge the ground area of track and thus raise the bulldozer traction.

* The strength king-pin tracks are developed specially for the poor working conditions, suitable for all complicated conditions because of its high reliability and the load-bearing capacity.

Cooling system

This system could guarantee the engine run normally and reliably under any load or hot condition, preventing against the engine overheating.

Electrical system

This system could realize the automatic diagnosis and the whole-course monitor. In addition, the injection instrument panel integrates the A/C, the electric equipments and the instruments, making more beautiful and upscale.

Driving environment

* The cabs have not only the beautiful shapes but also the super-large internal room and the wide vision.

In addition, the damping devices could absorb the vibration, providing the more safety and comfort to the operators.

* According to the man-machine engineering, the driver's seat and handle could be easily adjusted upward, downward, forward and backward. In addition, the speed control, the steering wheel and the accelerator are on left side and adopt the cable type. The working equipment is on right side and adopts the servo-control system, realizing the flexible process and relieving the fatigue.



Structure

The main frame of box type adopts the quality material and the strength castings and enjoys the high impact load and torsion. In addition, the quality welding seam could ensure the main frame works in its life cycle.

Accessories for working parts

* The standard straight shovels have the excellent durability due to the high cutting force, high-strength structure and high-performance material and thus are available for all tough environments. In addition, the shovels of 6.4m³ high-capacity are



suitable for all kinds of earthworks and the bulk materials. Besides, the angle shovels, U-shovels and semi U-shovels are available to users.

* Large single-tooth ripper with the adjustable penetration angle is used to loosen the soil layers such as the clay and the frozen soil and to peel off the solid surface such as the gravels and the hardened salt mine. The work efficiency and the super penetration are guaranteed with the strength beam, the frame and the tempered tooth bar and tip.



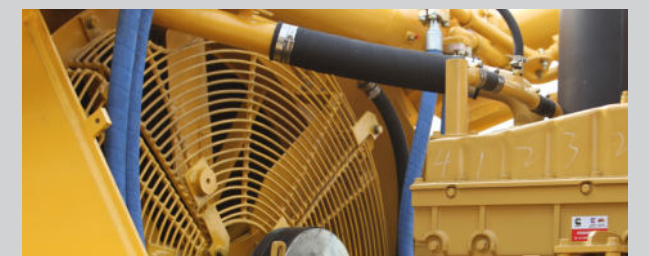
Safety

* The safe warning lamp, the reversing alarm, the horn, the excellent brake and the distinctive painting could effectively protect the periphery personnel and enhance the safety in all-weather operations. In addition, the seatbelt, the handles and the safe signs give the security protection to the operators.

* The side guard could effectively protect the engine and the radiator from being blocked and damaged due to the foreign particles, making the entire machine more beautiful.

* The standard antifreeze could raise the boiling point and lower the freezing point, effectively preventing against the scales depositing on the engine and the radiator, beneficial to the engine cooling and the protection.

* In addition, the sport bars for litters and others are optional and could protect the operators in emergency.



Maintenance

* The eye-catching signs say accurately when to maintain the machine. In addition, this battery is maintenance-free. In addition, the open-type hood could have the inside parts exposed as much as possible, easily realizing the inspection and the maintenance.

* This maintenance cost is much lower than others due to the reliability and thus the long Mean Time Between Failures (MTBF). ☑ Shantui perfect service network, as well as timely, thoughtful and warmhearted service, could give your assurance to use this machine, satisfying the expectancy for Shantui products.

220HP Bulldozer Series

SHANTUI



Rated Power: 162kW@1800rpm
Engine Model: Cummins NT855-C280S10; Weichai WD12G240E26
Operating Weight: 24.6 Tons



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Rated Power: 162kW@1800rpm
Engine Model: Cummins NT855-C280S10; Weichai WD12G240E26
Operating Weight: 26 Tons



Rated Power: 162kW@1800rpm
Engine Model: Cummins NT855-C280S10; Weichai WD12G240E26
Operating Weight: 23.44 Tons

SD22C Coal Bulldozers

FEATURES

* Features the advanced technologies, high reliability, low fuel consumption and the convenient maintenance. The high-capacity coal shovels and the engine intake pre-filter are suitable for transferring, paving and piling of coals.

SD22D Desert Bulldozers

FEATURES

* SD22D desert bulldozers are designed specially for desert working conditions, featuring the advanced technologies, high reliability, low fuel consumption and convenient maintenance.
* The ground specific pressure is greatly lowered by using the extended trolley, featuring the excellent desert trafficability.
* The high-capacity radiator and the engine intake pre-filter are mounted, able to be suitable for hot and windy features in desert and semi-desert areas.

SD22R Sanitation Bulldozers

FEATURES

* SD22R sanitation bulldozer adopts the wetland bulldozer chassis, greatly reducing the ground specific pressure and improving the trafficability. This bulldozer is really suitable for filling or compacting of household garbage.
* High warning lamp, reversing alarm, camera, LED and other special devices are mounted, enhancing the field safety.
* The large-capacity garbage shovel and the scraper are provided, greatly improving the working efficiency.

SD22W Rock Bulldozers

FEATURES

* SD22W rock bulldozers are designed specially for rock-working conditions, featuring the advanced technologies, high reliability, low fuel consumption and convenient maintenance.
* They are equipped with the strength rock shovels.



Rated Power: 162kW@1800rpm
Engine Model: Cummins NT855-C280S10; Weichai WD12G240E26
Operating Weight: 24.7 Tons

SD22F Forest Logging Type Bulldozers

FEATURES

* SD22F forest logging type bulldozers are designed specially for the forest working conditions, featuring the advanced technologies, high reliability, low consumption, and convenient maintenance. Furthermore, the anti-rolling cab for logging is provided.
* The anti-rolling cab and its shed special for logging, 610mm wide track and mechanical winch (optional) have the good trafficability and the self-help performance, suitable for lumbering, collecting and dragging of lumbers in rainforest and tree farm.



Rated Power: 162kW@1800rpm
Engine Model: Cummins NT855-C280S10; Weichai WD12G240E26
Operating Weight: 25.7 Tons

SD22S Wetland Bulldozer

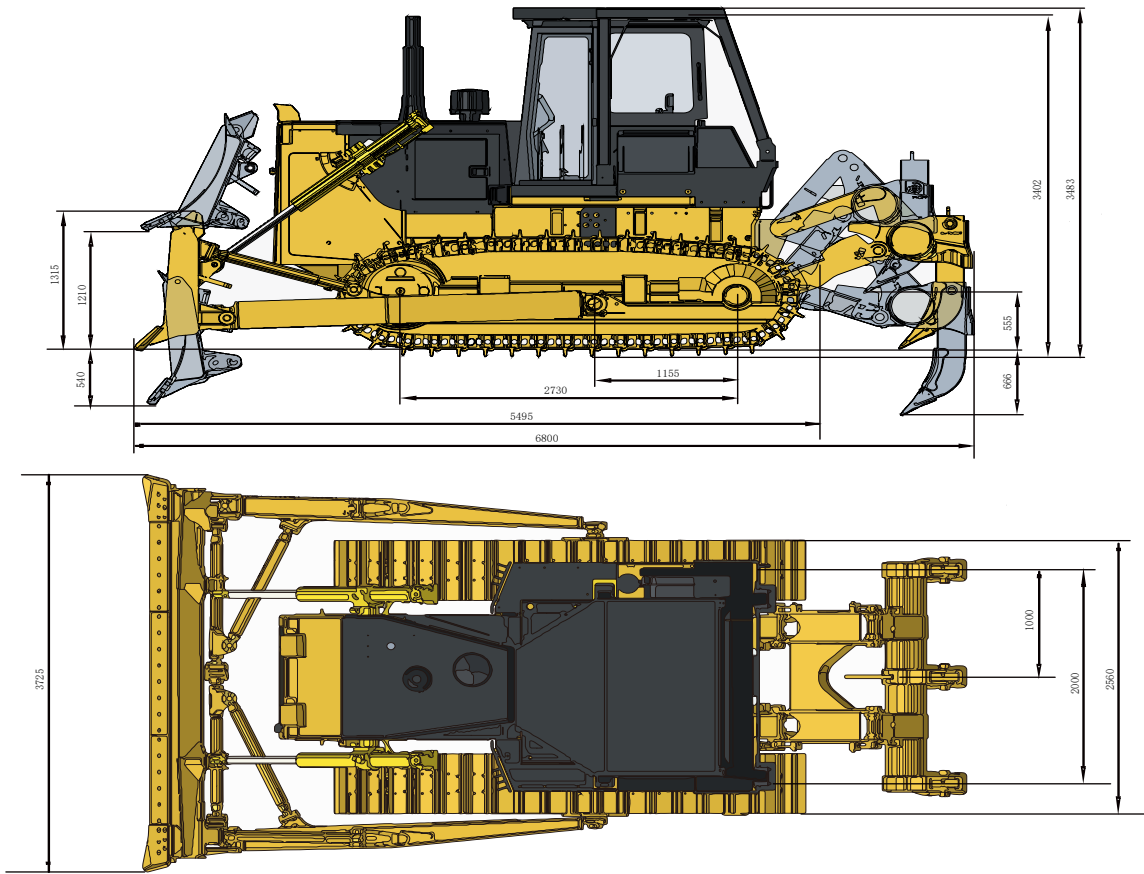
FEATURES

* SD22S wetland bulldozers are designed specially for wetland working conditions, featuring the advanced technologies, high reliability, low fuel consumption and convenient maintenance.
* The ground specific pressure is greatly lowered by using the extended trolley and the 910mm wide wetland track, featuring the excellent desert trafficability.

220HP Bulldozer Series SPECIFICATIONS

ENGINE		SD22/W	SD22C	SD22F	SD22D/E	SD22S	SD22R
Engine		Cummins NT855-C280S10					
Emission		China-I					
Rated revolution		1800rpm					
Gross power		175kW(235hp)@1800rpm					
Net power		162kW(220hp)@1800rpm					
Number of cylinder-bore×stroke		6-140X152mm					
Displacement		14.01L					
Max. torque		1080N.m@1300rpm					
Cooling system		Mechanic fan					
DRIVE SYSTEM		SD22/W	SD22C	SD22F	SD22D/E	SD22S	SD22R
Drive system		Manufactured by SHANTUI, with high working efficiency, low breakdown rate; torqflow transmission, 3 gears forward and 3 gears backward.					
Traveling speed	Forward	F1:3.6km/h R2:6.5km/h F3:11.2km/h					
	Backward	R1:4.3km/h R2:7.7km/h R3:13.2km/h					
Max. theoretical traction force		450kN					
Torque converter		3-element, single stage, 1-phase					
Transmission		Planetary gear and torqflow transmission hydraulically actuated, forced lubrication					
Central drive		Spiral bevel gear, single-stage speed reduction, splash lubrication					
Steering clutch		Wet multiple disc, disc spring loaded, hydraulically actuated, hand operated, interconnected with steering brake.					
Brake clutch		Wet, contracting band, foot operated with hydraulic booster					
Final drive		Spur gear, double reduction ,splash lubrication					
CHASSIS SYSTEM		SD22/W	SD22C	SD22F	SD22D/E	SD22S	SD22R
Type		Swing type of sprayed beam, suspended structure of equalizer bar					
Track shoe type		Single grouser				Wetland type	
Track gauge		2000mm				2250mm	
Width of track shoe		560/610/660mm	660mm	610/660mm	560/610/660mm	910mm	
Track grounding length		2430mm				3050mm	
Track grounding area		28727cm²	40935cm²		38317cm²	71476cm²	
Number of track shoe		38pcs/side				41pcs/side	45pcs/side
Grounding pressure (standard configuration)		66kPa	57.5kPa	64kPa	66kPa	36kPa	35.2kPa
Number of carrier roller		2 pcs/side					
Number of track roller		6pcs/side				7pcs/side	8pcs/side
Pitch		206mm					
VOLUME		SD22/W	SD22C	SD22F	SD22D/E	SD22S	SD22R
Fuel capacity		450L					
Coolant liquid capacity		79L					
Engine oil capacity		45L					
Transmission		122L					
Drive axle		110L					
Final drive		82L/side				102L/side	
OPERATING WEIGHT		SD22/W	SD22C	SD22F	SD22D/E	SD22S	SD22R
Operating weight (standard)		23450kg	24000kg	24700kg	24600kg	25700kg	26000kg

BLADE	SD22/W	SD22C	SD22F	SD22D/E	SD22S	SD22R
Blade type	Coal-U	Straight-tilt/Angle/Semi-U/U			Straight-tilt	Waste handing
Blade capacity	8m ³	4.6/3.4/5.8/6.7m ³			5.2m ³	11.8m ³
DIMENSION	SD22/W	SD22C	SD22F	SD22D/E	SD22S	SD22R
A Machine height (without ROPS)	3402mm					
B Track grouser height	72mm				123mm (Wetland type)	
C Ground clearance	405mm				513mm	
D Machine length(without draw bar)	6027mm	5462mm		5712mm	6257mm	
E Machine length (with draw bar)	6060mm	5495mm			6290mm	
F Max. lifting height of blade	1210mm				1330mm	
G Max. digging depth of blade	540mm				550mm	
H Digging angle of blade	55°±3°(deg.)					
I Blade width	4200mm	3725/4365/3800/3725mm			4365mm	
J Blade height	1350mm	1315/1055/1343/1374mm			1248mm	1885mm
O Width from end of left track shoe to end of right track shoe (standard)	3000mm				3800mm	
PARAMETER OF RIPPER						
Type	Three-shank ripper			Single shank ripper		
Weight	2600kg			2450kg		



* The specifications are subject to change without notice. The pictures may include options. The actual color & appearance of the product may differ from what is shown.

SPARE PARTS

A key element in Shantui Value

How Shantui’s dominant position in the production of all types of parts and components for construction machinery adds up to more VALUE for you.



Shantui actually makes its own structural parts, including arms, tracks, undercarriages, roller sets, buckets, and also makes its own transmissions, torque converters and much more for a wide range of construction machinery products.

Unlike most competitors in China, Shantui doesn’t just assemble machines—we build them from scratch. Many of Shantui’s competitors in China and around the world—are also its customers when it comes to parts. It’s one more reason why Shantui delivers better value in its finished products.

SHANTUI PARTS WITHSTAND STRESS—SO YOU DON’T HAVE TO!

Shantui manufactures many of our lines’ structural parts—undercarriage, tracks, buckets, roller sets, torque converters, transmissions and more—in house. That means better quality control for our bulldozers and a better price for you. Parts and components—The Shantui Way.

Easy installation.

Simple design makes for easy cleaning, mounting and dismantling of the main links, assuring reliability and high endurance. High-temp, inductive hard surfaces ensure the best strength and superior wear-resistance.

Crack-proof.

When the bushing material is cold extruded, the steel fibers in it are evenly distributed. Carburization then ensures sufficient core hardness and wear-resistance of the surface.

Strength.

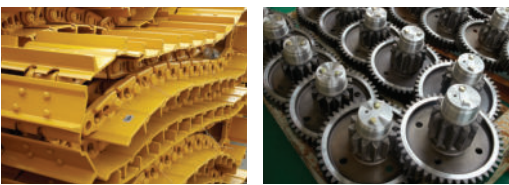
Special heat treatment and quenching ensures the strong wear-resistance of the pin shaft for anti-bump, anti-stress and consistent strength, which is critical to the process.

All-around adaptability.

Track shoes include single-tooth, double-tooth, as well as swamp type, to meet all varieties of work conditions, with strong wear-resistance and enduring performance.

Transmissions.

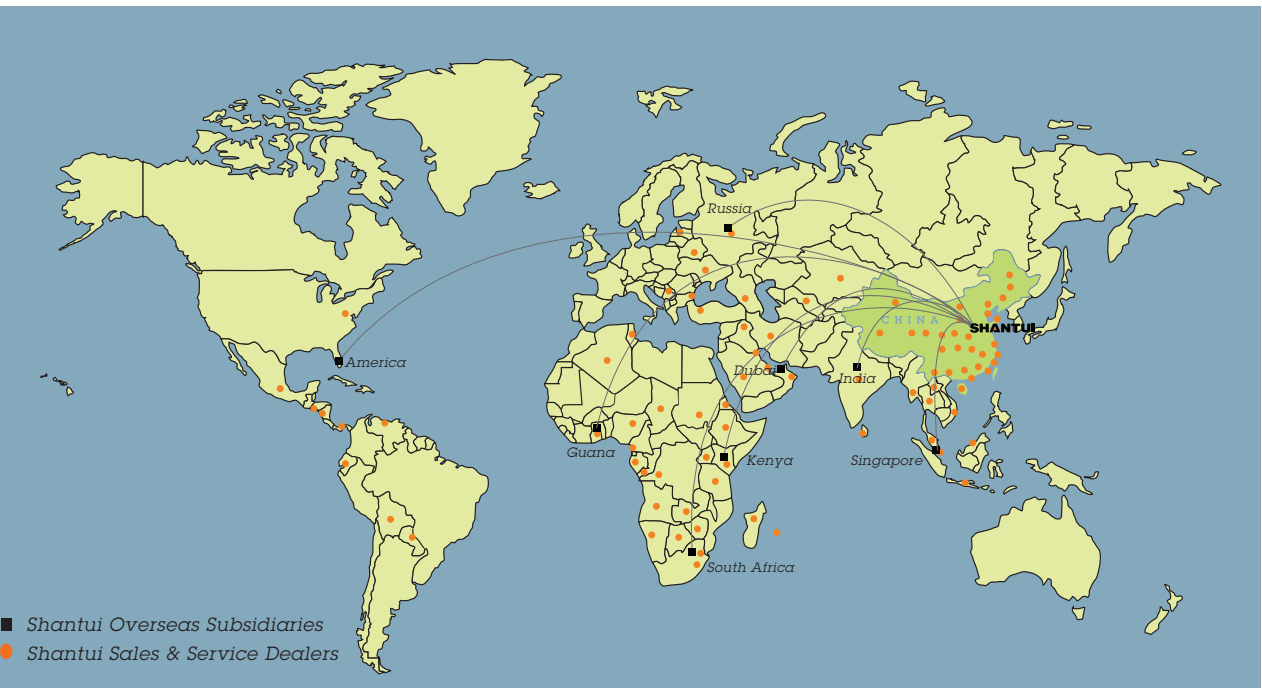
At Shantui, we make our own transmissions for our many lines. This is a key component in our vertical integration, further contributing to our trademark value proposition.



OUR GLOBAL SALES AND SERVICE NETWORK

Shantui’s global sales and service network now covers more than 160 countries and territories around the world.

Shantui has extended its well-regarded domestic market promise of ANYTIME, ANYWHERE SERVICE to its offices abroad and to all of its dealers and agents abroad. The network offers local training, has a mature parts delivery system and is still rapidly growing as Shantui’s exports pick up steam. Contact your local Shantui distributor or dealer to learn more about the ways that Shantui brings value to a wide range of construction and concrete handling projects.



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