

LET'S MAKE CONSTRUCTION EASIER

GROUP PRODUCTS



SHANTUI

SD60-C5
Crawler Dozer



Shantui Social

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SHANTUI
LET'S MAKE CONSTRUCTION EASIER

Engine Model: CUMMINS QSK19
Gross Power: 450KW(604 HP)/1800 RPM
Operating Weight: 70,630kg

Linde Hydrostatic Travel Drive
electronically controlled

| SD60-C5 CRAWLER DOZER

LET'S MAKE CONSTRUCTION EASIER

The SHANTUI SD60-C5 is characterized by the modular design, with normally closed brake single-handle walking control system, lockup torque converter temperature-controlled cooling system, floating walking system, intelligent display terminal and other advanced technology. Mainly applicable to mining, large-scale water conservancy, infrastructure and other heavy duty operations, the equipment can adapt to tough environment, and greatly improve productivity with low costs.

The SD60-C5 is base on SD52-5, uses same solid and reliable engine, chassis system transmission system, etc. The electric traveling system and the driving system are completed upgraded.

MACHINE STRUCTURE

MODULAR STRUCTURE DESIGN

LARGE SPACE MICRO SUPERCHARGED CAB

STRONG POWER DEVICE

5G REMOTE CONTROL SYSTEM

STRONG CHASSIS SYSTEM

HIGH-EFFICIENCY WORK DEVICE

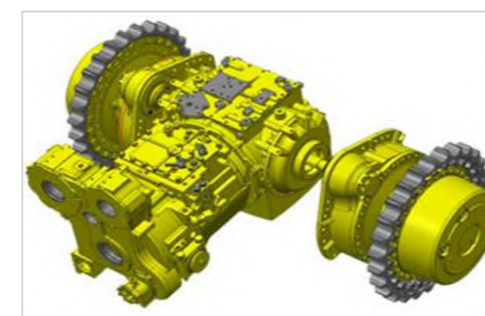
COMPREHENSIVE LIGHTING SYSTEM

4D LIGHT FIELD HOLOGRAPHIC DEVICE



MODULAR STRUCTURE DESIGN

- The machine adopts advanced sealed modular structure design, which is easy for cleaning, processing, maintenance and inspection of equipment.
- It is easy to standardize and interchange equipment.
- Increase the convenience of transportation and on-site installation of components.



MODULAR DRIVE SYSTEM

- The drive system adopts modular design, can be installed and removed as a whole unit.
- Reduce the quantity of hydraulic lines outside the system.
- Facilitate the replacement of gearbox assembly on site.

HEPTAHEDRON CAB

The seven-sided design with high-strength structure ensures good visibility and operating safety.



WIDE VIEW

The exhaust pipe and pre-filter are placed on the side of the engine hood to minimize the impact on the forward view. Thicken cab door glasses and glass wipers make maximum ease to view the blade work. The ROPS/FOPS protective frame is standard to ensure the operator's safety.

ADJUSTABLE SEAT

- The mechanical suspension seat is has good shock absorption performance.
- The forward and back positions, height and backrest angles can be adjusted.
- The seat can be retated 15° to the right side for easy view of soil loosening.



AIR CONDITIONER

The AC locates on the rear top of the cab to optimize layout of the air conditioning system.

AC VENTS

5 AC vents are arranged surround the seat that the operator could adjust and close them easily.



COMBINED CAB ELECTRICAL SYSTEM SWITCH, RADIO AND CIGARETTE LIGHTER.



AIR CONDITIONING CONTROL PANEL

The air conditioning control panel is located on the left side of the seat, with 2 switches, the left switch controls air flow and the right one controls temperature.



LARGE SPACE

The cab has a large internal space and the operating devices are reasonably layout for maximum comfort.



ELECTRICALLY CONTROLLED TRAVELING OPERATION HANDLE

The operator could control traveling precisely by the operating handle, and achieve variable speed by pressing the button without excessive force in a comfortable way.



PPC WORKING OPERATION HANDLE

The handle with proportional pressure control valve can operate the work device precisely, makes it easy and comfort to operate.



Knob engine speed hand throttle.



Engine reduction pedal and brake pedal.

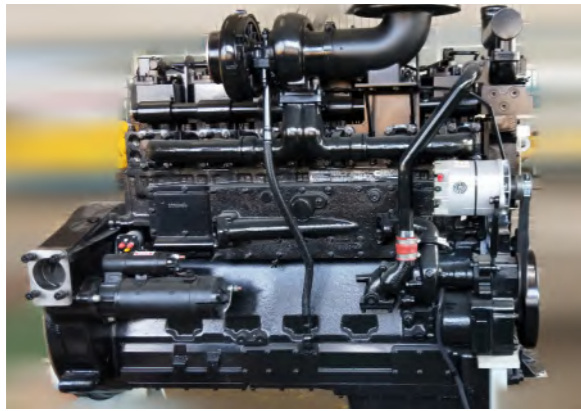


Safety lock lever avoids misoperation.



POWER TRAIN

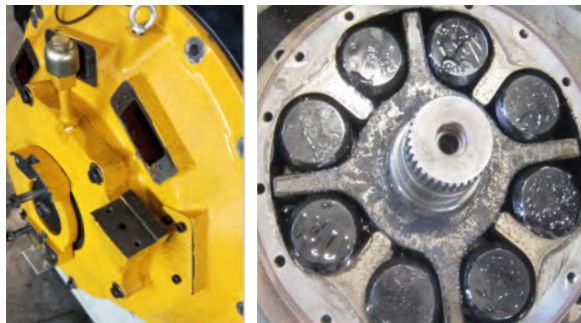
ENGINE



-Cummins QSK19-C604 turbo charged, air-air intercooler diesel engine performs at full rated net power of 450 kW (604 hp), meet the EU stage IIIA and Chinese Tier 3 emission regulation.

-Engine type : in-line, water-cooled, electronically controlled, turbo charged, air-air intercooler, equipped with advanced modular common rail fuel system (MSRS) featuring strong power, top performance, high productivity.

DAMPER



8 units block rubber effectively absorb the vibration caused by engine when speed suddenly rising during heavy load job, so to protecting the engine and transmission system.

RADIATOR

Aluminum material and integrated modular design, with good heat dissipation performance and vibration resistance.

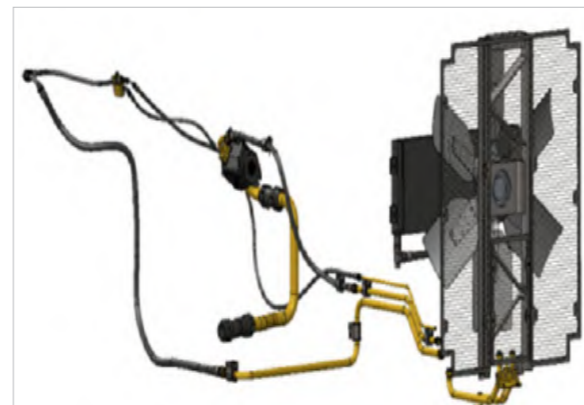


AIR PREFILTER



Cyclone intake system with double pre-filters and Donaldson filter, effectively reduces the inlet resistance and improves the dedusting ability, prevents the earlier malfunctions of engine.

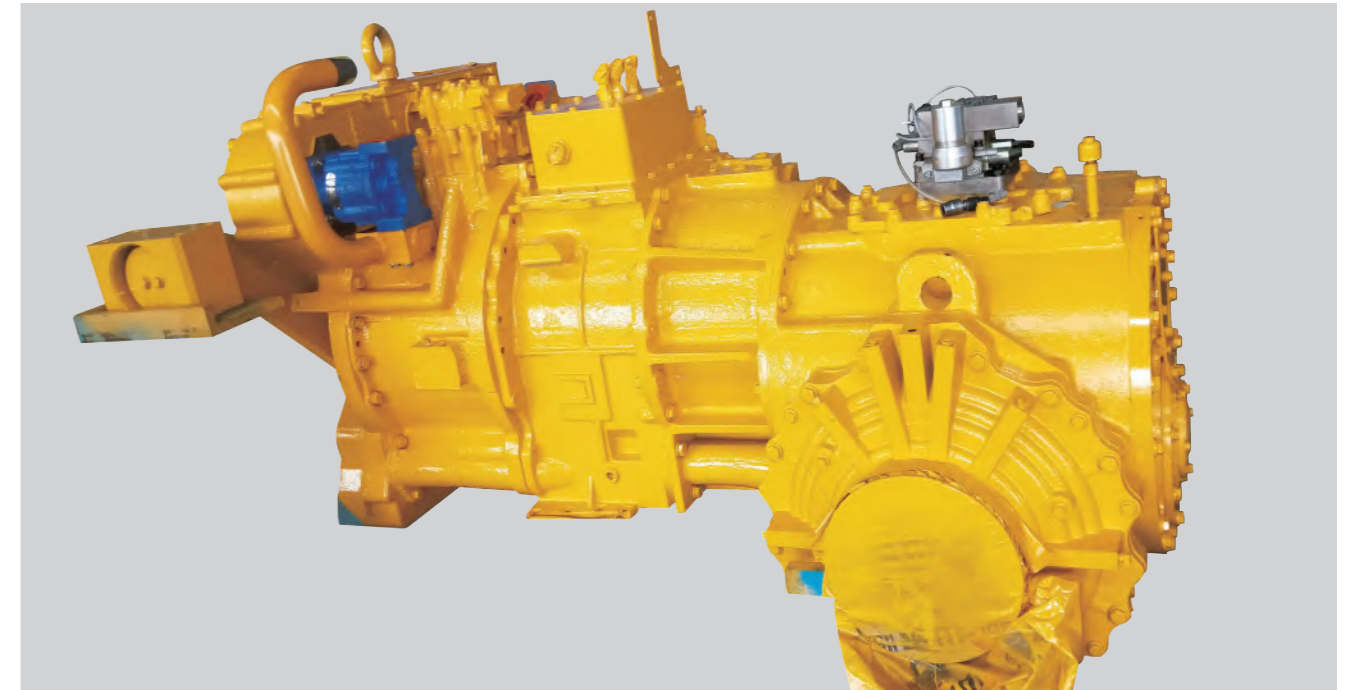
HYDRAULIC DRIVEN FAN



The temperature controlled fan system can intelligently control the fan speed and adjust on-demand to improve fuel economy and reduce noise effect, the fan can achieve the reversing function, for cooling fan works in forward direction, for radiator cleaning.

MODULAR TRANSMISSION SYSTEM

Transmission components adopt modular design and can be assembled independently to ease the repairs.



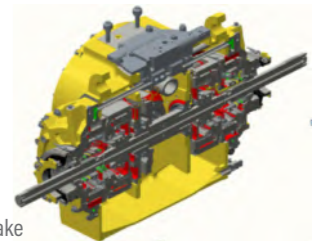
TRANSFER CASE AND TORQUE CONVERTER

-Transfer case distribute power to every pump unit and transfer the power to torque converter.
-Torque converter : 3-element, 1 stage, 1 phase.



STEERING AND BRAKE CLUTCH

-Steering clutch: Lubricated, multi-disc, spring applied, hydraulically applied.
-Brake clutch: Lubricated, multi-disc, spring applied, hydraulically applied.
-The normally closed brake plays the parking brake function to effectively prevent the machine gliding on slopes and realize high safety.



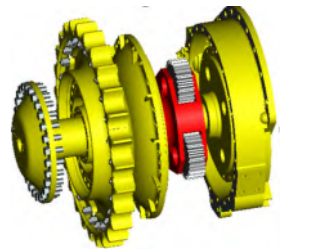
TRANSMISSION BOX

-Planetary powershift with multi-disc clutch.
-Forced-lubrication, electric controlled hydraulic gear shifting with provides 3 forward speed and 3 reverse speed.
-Equipped with Solenoid transmission control valve.



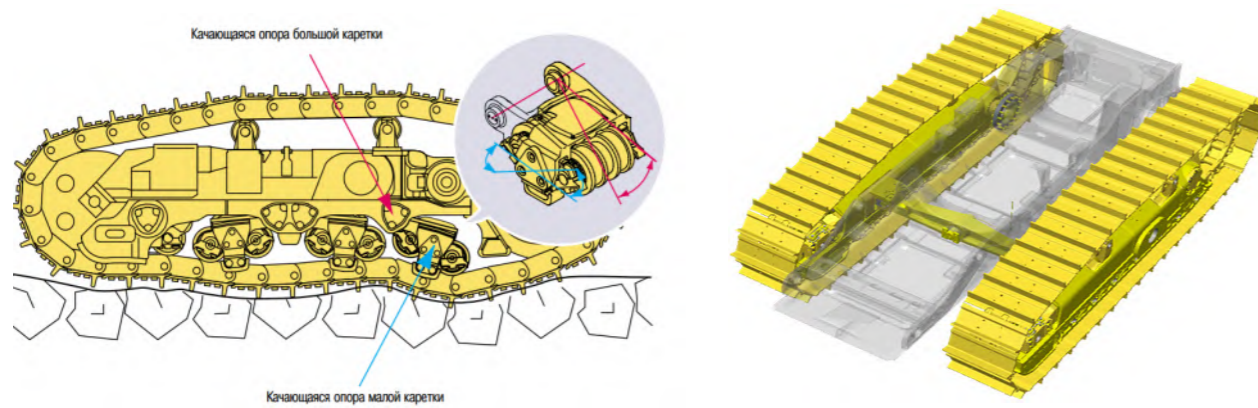
FINAL DRIVE

Two-stage reduction Spur gear and planetary gear reduction are modular designed and can be assembled independently to ease the repairs.



UNDERCARRIAGE

K SUSPENSION DESIGN CHASSIS SYSTEM



-The chassis system adopts track rollers of type K suspension design , achieve floating traveling function, give operator a smoother ride, isolated from harsh impact loads, prolong the machine life, ensure strong road adaptability and good traction performance.

When the dozer work on complicated working conditions:

- 1.Track rollers swing up and down corresponding to the oscillation frame.
- 2.Oscillation frame swing up and down corresponding to the chassis frame.
- 3.Cushion rubber limits the swing range of the track roller and absorb the vibration and impact from ground.

-Oscillation: front equalizer bar and rear pivot shaft suspension structure.

OIL LUBRICATION IDLER



LUBRICATED TRACK SHOE ASSEMBLY



OIL LUBRICATION CARRIER ROLLER



HIGH ABRASION RESISTANT SPROCKET SEGMENT



LUBRICATED TRACK LINK



OIL LUBRICATION TRACK ROLLER



Sealed and lubricated pin shaft prevent the wear of pin shaft and pin bush ,extend the track link service life.

WORK DEVICE

BIG CAPACITY BLADE



The 18.9m³ semi-U blade features large capacity and high efficiency. Blades are made of high tensile strength steel provide high wear-resistant performance.

RIPPER



Rippers could penetrate tough material fast and rip thoroughly, ripping depth can be easily adjusted in 3 position by the ripper pin puller.

RIPPER PIN PULLER



Operator can adjust the shank depth from seat by using a hydraulic handling ripper pin puller to increase the efficiency and reduce the labour cost.

ELECTRONIC AND LIGHTING SYSTEM

ELECTRONIC SYSTEM



- High quality electric elements ensure the reliable system.
- Monitoring system with self-diagnosis function displays the operating and failure information.
- Large size LCD screen is easy to read.
- Pin puller and fan reverse function can be controlled through the display.
- System language selection is easy to operate.

LIGHTING SYSTEM

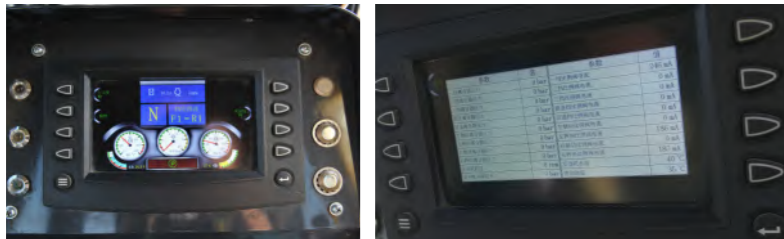


Bright light LED lamps , 6 in front, 6 at rear, and 1 for ripper to ensure the visibility and safety during night work.



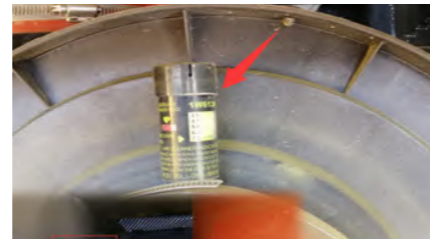
SERVICEABILITY

SELF-DIAGNOSTICS



Intelligent electronic system is easy to get the operating and failure information on the screen. Dozer controller communicating with engine ECU shows the engine failure in time, help the operator and technician to make fast service.

AIR FILTER INDICATOR



Air filter indicator shows the filter condition in different color, remind the operator to replace filter in time.

LUBRICATING POINT



Adjust the lubricating point, easy for daily maintenance.

CENTRALIZED PRESSURE MEASURING POINT



Centralized pressure measuring point for transmission system is easy for service.

GUARD PROTECTION AND WALKING PLATFORM



This guard and platform design can well protect the operator and make it easy to reach oil filling position, clean the window or check the lighting system etc.

LARGE OPENING ENGINE HOOD



Large opening engine hood is easy for engine service.

STANDARD OPTION

STANDARD

- Generator 24/100A
- Starter 24V/8KW
- Reverse alarm
- Working alarm light
- Horn
- Battery OPTIMA 12V,75Ah *4
- Temperature hydraulic driven fan
- Decelerate pedal
- Air filter indicator
- Dirtboard
- Hinged guard
- Bottom guard with towing hook
- Lighting system 13 LED lamps
- Parking brake
- Wet clutch
- Muffler
- Rain proof exhaust pipe
- FOPS cabin
- ROPS cabin
- Replaceable sprocket segment
- 7 track roller each side
- 610mm lubricated track shoe

OPTIONAL

- 710 or 810mm track shoe
- Central lubrication system
- Ether start assist
- Coal blade(41.4m³)
- Reverse camera
- Quick refueling system
- Fuel heater
- Fuel cooler



- Suspension seat
- Single electric controlled joystick for travelling
- Oscillation undercarriage
- A/C
- Distinguisher
- Ripper pin puller
- Centralized pressure measuring system
- Semi-U blade(18.9m³)
- Single-shank ripper

SD60-C5 SPECIFICATIONS

WEIGHT	
Operating weight	70630kg
Transport weight	52100kg
DRIVE	
MIN TURNING RADIUS	
Without blade	3864mm
With blade	6786mm
Gradeability	30°
Stability:front/rear; left/right	30°
Ground pressure	130.2kPa
Travelling speed	
F.1st	3.8km/h
F.2nd	6.8km/h
F.3rd	11.8km/h
R.1st	5.1km/h
R.2nd	9.2km/h
R.3rd	15.8km/h
ENGINE	
Model	Cummins QSK19
Type	4-stroke,In-line,water cooled ,electronic control,turbocharged diesel,air to air intercooler
Bore*stroke	159*159mm
Displacement	19L
Rated power	450/1800kw/rpm
Max. torque	3019/1300Nm/rpm
Low idle speed/High idle speed	750/1900rpm
Min fuel consumption	216g/kw.h
Applicable altitude	≤3048m
Applicable temperature	-12~45°
GENERATOR	
Rated voltage	24V
Rated current	100A
START MOTOR	
Rated voltage	24V

Rated power	8kw
BATTERY	
Unit capacity	75Ah
Unit rated voltage	12V
Quantity	4
TRANSMISSION SYSTEM	
Torque converter	1 stage, 1 phase,3-element,electronic controlled lockup clutch,forced lubrication
Transmission box	Planetary,multi-disc,hydraulic applied,forced lubricated, 3 forward gear,3 reverse gear
Bevel gear	Spiral bevel gear,splash lubrication
Steering clutch	Wet,multi-disc,spring application,hydraulic separated(electronic controlled),linked with brake clutch
Brake clutch	Wet,multi-disc,spring application,hydraulic separated(electronic controlled),linked with steering clutch
Final drive case	Spur gear reduction, planetary gear reduction,splash lubrication
HYDRAULIC SYSTEM	
TRANSMISSION PUMP Gear pump	
Front pump:transmission and steering pump	Displacement 112ml/r
Rear pump:lubrication pump	Displacement 160ml/r
Temperature controlled fan pump	Swash plate plunger pump, 140ml/r
WORKING PUMP	
Type	Fixed displacement gear pump and double pump confluence
Pump1	Front pump displacement 135ml/r
Pump1	Rear pump displacement 10ml/r
Pump2	- 70ml/r
SCAVENGE OIL PUMP	
Type	Gear pump
Front pump	Displacement 63ml/r
Rear pump	Displacement 200ml/r
Fan motor	Swash plate plunger motor, 110ml/r
HYDRAULIC CYLINDER	
	Bore of working cylinder 150mm
	External diameter of piston rod 90mm
Blade lift cylinder	Stroke of working cylinder 1671mm
	Min. length between mounting hinge points 937mm
	Relief valve setting 21mPa

	Bore of working cylinder	225mm
	External diameter of piston rod	110mm
Blade tilt cylinder	Stroke of working cylinder	220mm
	Min. length between mounting hinge points	1478mm
	Relief valve setting	21mPa
	Bore of working cylinder	225mm
	External diameter of piston rod	110mm
Ripper lift cylinder	Stroke of working cylinder	495mm
	Min. length between mounting hinge points	1360mm
	Relief valve setting	21MPa
	Bore of working cylinder	200mm
	External diameter of piston rod	110mm
Ripper tilt cylinder	Stroke of working cylinder	550mm
	Min. length between mounting hinge points	1250mm
	Relief valve setting	21MPa
	Bore of working cylinder	55mm
	External diameter of piston rod	30mm
Pin puller cylinder	Stroke of working cylinder	150mm
	Min. length between mounting hinge points	378mm
	Relief valve setting	21MPa

UNDERCARRIAGE SYSTEM	
Structure	Modular design,equalizing beam, K type oscillation suspension
Number of carrier roller	2
Number of track roller	7
Single flange each side	4
Double flange each side	3
Track shope type	Master link single grouser lubricated track shoe
Number of track shoe	40
Pitch	280mm
Width of track shoe	610/710/810mm
WORKING DEVICE	
	Max. lifting height/digging depth 1660/715mm
	Max. tilting adjustment 730mm
	Blade capacity 18.9m³
	Blade width 4690mm
	Blade height 2250mm
	Digging angle of blade 55°
	Max.digging depth 1435mm
	Max.lifting height 1105mm
Single-shank ripper	Departure angle(at highest lifting) 32.5~55°
	Ripper width 1600mm
	Depth position 3

