

# Engineering built smarter. Solutions built to last.

Tuboshu delivers innovative, sustainable engineering built for Africa. Backed by decades of expertise, we design adaptive, high-performance solutions that solve real operational challenges. Our commitment to quality drives every project, supported by a trusted network for maintenance, technical assistance, and ongoing after-sales service.

## Elevate Your Power



**TUBOSHU**<sup>7</sup>

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Certain specification(s) are based on engineering calculations and are not actual measurements. Specification(s) are provided for comparison purposes only and are subject to change without notice. Specification(s) for your individual Tuboshu equipment will vary based on normal variations in design, manufacturing, operating conditions, and other factors. Pictures of Develon units may show other than standard equipment.

**TUBOSHU**<sup>7</sup>



BULLDOZER <sup>7</sup>  
**TD220-S**

# TECHNICAL SPECIFICATION

## CHARACTERISTICS

Manufacturer	TUBOSHU
Model	TD220-S
Configuration Number	TUSIGY220UK

## ENGINE

Manufacturer	Cummins
Model	NT855-C280S10
Type	Straight vertical, four-stroke, water cooling, PT pump injection, turbocharged
Rated Power	175kW@1800 rpm
Max. Torque	1440N.m@2000rpm
Number of Cylinders-Bore×Stroke	6-139.7×152.4mm
Starting Method	Starting Motor -24V, 11kw
Battery	24V(12V×2)-195Ah
Air Cleaner	Dry horizontal type with precleaner
Min. Fuel Consumption Ratio	218g/kw-h

## TRANSMISSION SYSTEM

Torque Converter	3-elements, single-stage, single-phase
Transmission	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, Spring loaded, hydraulically released
Steering Brake	Wet band Brake operated with hydraulic booster
Final Drive	Double reduction, splash lubricated

## TRAVEL SPEED (km/h)

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

## HYDRAULIC SYSTEM

Working Pressure	14 Mpa
Working Flow	2000 rpm / 262 L/Min
Pump	Gear Pump
Control Valve	Hand-operated plunger sarvo controlling

## UNDERCARRIAGE

Sprocket	Segmented
Number of track rollers(each side)	6(4 Single, 2 double) / 8(5 Single, 3 double)
Track Tension	Hydraulic-adjusted

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

## WORK EQUIPMENT

Blade Type	Straight Tilt Blade	Angle Blade	Semi U Blade
Blade Width	3735mm	4365mm	3725mm
Blade height	1310mm	1055mm	1374mm
Max. Drop Below Ground	538mm	535mm	540mm
Max. Tilt	>735mm	>500mm	>755mm
Blade Capacity	6.4m³	4.7m³	7.5m³

## TRACK

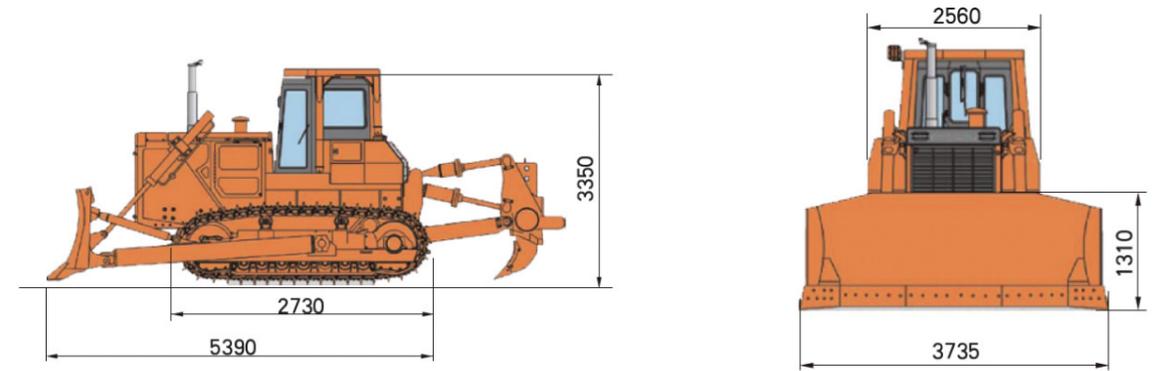
Type	Sealed, single grouser
Track Pitch	216mm
Track Width	560mm
# of Track Shoes on Each Side	38
Length of Track on Ground	2730mm
Ground Clearance	405mm
Track Gauge	2000mm

## RIPPER

Type	Single Shank / Three Shanks
Max. Dig Below Ground	695/666mm
Max. Lift Above Ground	515/555mm

### Weight

No Ripper	23.5
Single Shank Ripper	25.6
Three Shank Ripper	26.3



## Engine

- 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 air-air after cooler technology.
- 4 valves per cylinder for high power and low fuel consumption.

## Hydraulic Torque Converter

- TD320-S torque converter is of 3-element, 1-stage, 1-phase, centripetal turbine type with simple structure but good technology. It provides high power efficiency, great penetration, big capacity and less loss when the turbine idles.
- TD320-S hydraulic torque converter 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.

## Transmission

- This machine is equipped with transmission of planetary gear and rotary lockup multi-disc clutch, hydraulically engaged and force lubricated. Forward 3 speeds and reverse 3 speeds can be gained by actuating hydraulic control valve

## Final Drive

- We, as the first domestic company, master the technology in the manufacturing tip relief, crowned gear which features heavy load capacity, stable drive and long life.