

BD475-1

CRAWLER DOZER

Salient Features :

- Outstanding Productivity
- Breakthroughs in fuel economy
- Minimum down time
- Operator comfort



Flywheel horsepower (net) : 642 kW (860HP) @
2000 rpm

Operating mass : 100,000 kg

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CRAWLER DOZER

Salient Features :

Outstanding Productivity

- Stress absorbing undercarriages offer mighty traction
- A high-potency engine for powerful dozing and ripping

Breakthroughs in fuel economy

- Automatic lockup torque converter maximizes production while assuring excellent fuel economy
- The Cummins-QST30 electronic engine provides maximum fuel conservation
- Economical automatic two speed cooling fan and tandem pump system for reduced energy consumption.

Minimum down time

- Stress-absorbing undercarriages extend service life.
- Unique modular design makes it easy to remove power train components, without oil spillage
- Advanced monitoring system helps prevent minor problems from becoming major ones.

Operator comfort

- An extra low machine profile means excellent dynamic stability
- Large cab window area offers a panoramic view.
- A well-sealed cab provides excellent noise suppression



ENGINE

Make	Cummins
Model	QST30
Type	Electronic, Diesel, 4-stroke, water cooled v-type turbo charger with charge air cooler
Flywheel power (net)	642 kW (860 HP) @ 2000 rpm
Maximum torque	3747 Nm (382 kgm) @ 1400 rpm
No. of Cylinders	12
Bore & Stroke	∅ 140 mm x 165 mm
Displacement	30 ℓ (0.03 m³)
Electricals	
Alternator	24V, 75A
Starting motor	24V, 15kW (7.5 kW x 2)
Battery	(2 x 12 V, 160 Ah) x 2



TRANSMISSION

Torque Converter	Model	TCS-52 - 1D	
	Type	3 element, single stage single phase with lockup clutch	
Transmission	Type	Planetary gear, power shift electronically operated hydraulically actuated forced lubrication 3 forward, 3 reverse.	
Final Drive	Type	Spur and planetary gear, double reduction	
	Lubrication	Splash type	
Travel Speeds m/sec (km/h)	Total reduction	36.616	
	Range	Forward	Reverse
	1st	0-0.97 (0-3.5)	0-1.25 (0-4.5)
	2nd	0-1.75 (0-6.3)	0-2.27 (0-8.2)
3rd	0.3.00 (0-10.9)	0-3.97 (0-14.3)	



HYDRAULIC SYSTEM

Hydraulic pump	
Type	Gear pump
Capacity	585 ℓ / min @ rated engine r/min
Relief pressure	20.6 MPa (210 kg/cm²)
Hydraulic Cylinders	
Type	Double acting piston
Blade lift	2 Cylinders
Bore x Stroke	∅ 180 mm x 1781 mm
Blade tilt	1 cylinder
Bore x Stroke	∅ 250 mm x 285 mm
Ripper lift	2 Cylinders
Bore x Stroke	∅ 250 mm 645 mm
Ripper tilt	2 Cylinders
Bore x Stroke	∅ 250 mm x 540 mm
Pin Puller	1 Cylinder
Bore x Stroke	∅ 60 mm x 180 mm

STANDARD ACCESSORIES

Decelerator pedal	Dry type air cleaner with dust ejector
Tiltable floor frame	710 mm single-grouser
75A Alternator	extreme services shoes
Track roller guards	(Sealed and lubricated tracks)
Blower Fan	Fully adjustable operator seat
Back-up Alarm	Hinged lower guard with front pull hook
Final Drive case wear guard	Radiator reserve tank
Auto priming system	Lighting system (including 6 front and 2 rear lights)
Hydraulic Track Adjusters	Lever operated steering control
Hinged front mask	Power Shift transmission
Fire Extinguisher	Segmented sprockets

OPTIONAL ATTACHMENTS

ROPS Cabin / Canopy	Vandalism Protection Kit
Steel cabin	Working Light for Ripper
Air Conditioner	

VARIABLE GAINT RIPPER

Variable, parallelogram type single shank ripper ideal for digging up rocks digging angle is variable. Digging depth is adjustable in four stages by a hydraulic controlled pin puller.

Additional mass (including hyd. control unit):	: 7360 kg
Beam length	: 1477 mm
Max lift above ground	: 1140 mm
Max digging depth	: 1180 mm
Additional ground pressure	: 11.8 kPa



STEERING

Type	Wet, Multiple disc spring loaded, hydraulically released, hand operated, interconnected with steering brake for easy turning.
Min. Turning Radius	4.6 m

FILTRATION

Engine	Replaceable cartridge type full flow filter for lubrication system and by-pass filter for fuel line are provided.
Transmission Steering & Brake	Common magnetic oil strainer is provided. One replaceable element by-pass filter is provided for transmission system. One replaceable element type filter is provided for steering & braking
Hydraulic System	Magnetic plug & replaceable element type filter is provided.

UNDER CARRIAGE

Suspension	Oscillation type equalizer bar
Track frame	Cylindrical, high tensile strength steel construction
Track Rollers	8 No. Each side
Carrier Rollers	2 No. Each side
Track Shoes	39 No. Each side
Track Pitch	2770 mm
Grouser Height	105 mm
Shoe width	710mm (standard)
Ground Pressure	116.7 kPa (1.19 kg/cm ²)
Ground contact area	5.943 m ²

DOZER ATTACHMENT

	Straight tilt Dozer	Semi - U Dozer	U Dozer
Overall length with dozer mm	8660	8660	9160
Blade capacity m ³	25.6	27.2	34.4
Blade length x height mm	5265 x 2610	5265x 2640	6205 x 2610
Max. lift above ground mm	1620	1620	1620
Max. drop below ground mm	800	800	800
Max. tilt adjustment mm	1250	1250	1475
Additional mass			
Dozer Equipment kg	14600	14890	16200
Hydraulic Control Unit kg	1140	1140	1140
Additional ground pressure kPa (kg/cm ²)	25.5 (0.26)	26.0 (0.27)	28.4 (0.29)

COOLANT & LUBRICANTS CAPACITY (Refill)

Fuel Tank	1520 ℓ
Cooling System	215 ℓ
Engine Lub. Oil	55 ℓ
Transmission, Torque Converter & Steering	210 ℓ
Final Drive (each side)	75 ℓ
Hydraulic System	
Semi-U/U Dozer	180 ℓ
Ripper Equipment	130 ℓ

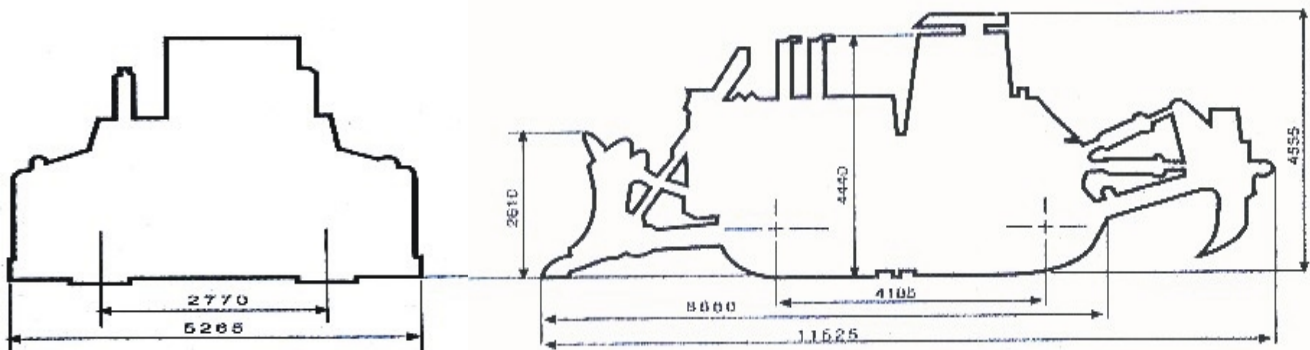
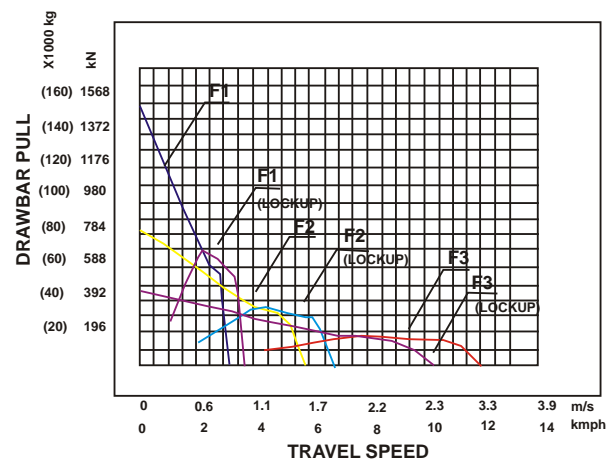
BRAKE

Type	Wet, multiple disc, spring loaded, hydraulically released, foot and hand operated, interconnected with steering clutch.
Parking brake	Hand operated with mechanical linkage.

MASS

Operating mass (Basic tractor, including semi-U dozer, giant ripper, steel cab, ROPS Canopy, operator, rated capacity of the lubricant, coolant and full fuel tank.).....	1,00,000 kg
Operating mass (Standard equipment with semi-U dozer)	91,380 kg
Shipping mass (Basic tractor with lubricating, hydraulic, cooling systems and 10% of fuel tank capacity.....)	75,640 kg

BD475-1 DRAWBAR PULL Vs TRAVEL SPEED



Material and specifications are subject to change without notice, Illustrations may include optional equipment & accessories

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