

BD31 BULLDOZER

SALIENT FEATURES

KOEL RB44TC Turbo charged diesel engine : Delivers a lugging 49 kW (66 hp). Direct-injection system for fuel saving and cleaner exhaust. Fuel adjustment is unnecessary upto an altitude of 2800 m.

Power-efficient hydroshift transmission : Smooth and responsive power shifting, but also makes it possible to make instant speed and directional changes by a single lever.

Wet type steering clutches and brakes : For extended service life. They are interconnected, enabling to perform quick lever controlled steering actions.

Single Lever controlling : All blade movements.

Long Track : Assures high machine balance, stability and more powerful traction even on soft terrain.

Floating seals : In idlers, rollers and final drive keep dirt out and lubrication in for durable operation and extended service life.

Dust seals : Located in-between link bushing and pin, prevent abrasive dirt or mud from entering and ensure long track life.

Comfortable operator's seat : Adjustable in fore/aft for best matched operator's stance.






Simple Maintenance : Dual type fuel filter with micro paper filter elements ensures supply of clean fuel to the fuel pump.

Flywheel horsepower(net) : 49kW (66HP) @ 2200 r/min

**Operating mass
(with power angle tilt dozer) : 6150 kg**








BD31 BULL DOZER SPECIFICATIONS

 Engine				 Steering		
Make		KOEL		Steering Clutch		
Model		RB44TC				
Type		Diesel, 4-stroke, turbocharged, water cooled, direct injection.		Type	Wet, multiple disc hand operated steering clutches are hydraulically boosted for light touch and actuation.	
Flywheel power ISO:9249		49kW(66 HP) @ 2200 r/min		Min. turning radius	2.2m	
Maxmium torque		253 Nm (25.8 kg/m) @ 1400 r/min		Brakes		
No. of Cylinders		4, inline		 Type	Wet contracting band. Foot operated steering brakes with hydraulic booster for light-touch actuation and long service life.Brakes and clutches are interconnected for easy steering.	
Bore & Stoke		110 x 116 mm				
Displacement		0.00441 m ³ (4.41 litres)				
Electricals						
Alternator		24V, 25A		Parking brake	Hand operated with mechanical linkage.	
Starting motor		24V		Instrumentation		
Battery		2 x 12V,120 Ah				
 Transmission				Wire harness		
Damper						
Type		Wet type, with built-in torsion and friction springs, absorbs engine torque vibrations as well as stress from external impacts.		Gauges and warning indicators		
Hydroshift transmission						
Type		Planetary hydroshift 3 forward, 3 reverse		Gauges for: - Engine oil pressure - Ammeter - Engine coolant temperature - Engine oil temperature - Hour meter - Tachometer Warning indicators for - Low engine oil pressure - Charge		
Final drive						
Type		Spur gear, single reduction				
Lubrication		Forced type				
Total reduction		126				
Travel speeds m/sec (km/h)						
Range		Forward m/sec. (km/h)	Rated drawbar-pull kN(kg)	Reverse m/sec. (km/h)	 Mass (approximate)	
1st		0-0.55 (0-2.0)	69 (7010)	0-0.61 (0-2.2)		Operating mass Tractor only (Including rated capacity of lubricant, coolant and fuel)
2nd		0-1.03 (0-3.7)	37 (3760)	0-1.06 (0-3.8)		Operating mass (Standard equipment with power-angle tilt dozer)
3rd		0-1.69 (0-6.1)	20 (2050)	0-1.86 (0-6.7)		
					6150 kg	

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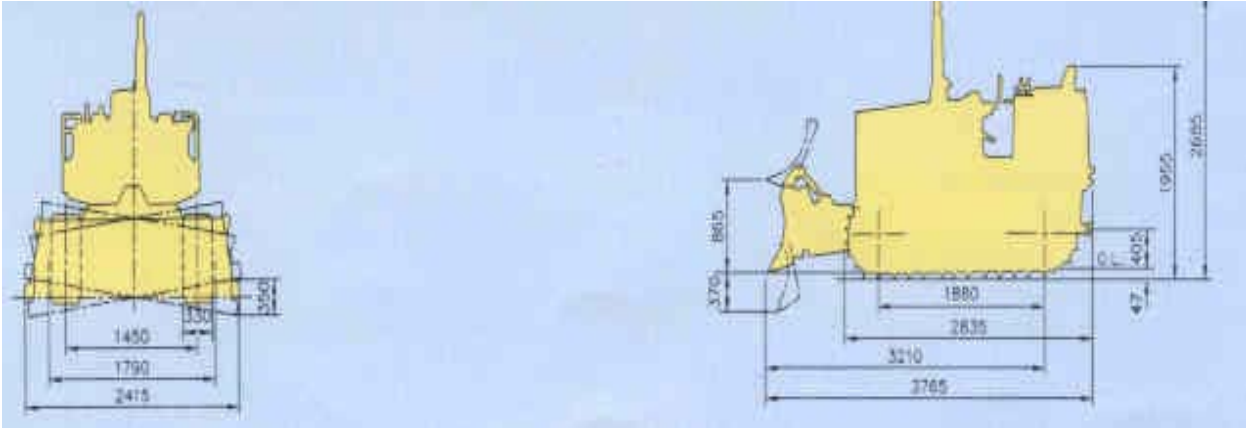


 Hydraulic System		 Under Carriage		
Hydraulic Pump		Suspension	Rigid type	
Type	Gear pump	Track Frame	Box section, high tensile strength steel construction	
Capacity	87 litres / min.	Track Rollers	5 no.each side	
Relief pressure	17.16 MPa(175 kg/cm ²)	Carrier Rollers	1 no.each side	
Hydraulic Cylinders		Track Shoes	37 no.each side	
Type	Double acting piston	Track Pitch	1450mm	
Blade lift	2 Cylinders	Grouser Height	47mm	
Bore x Stroke	90dia x 393 mm	Shoe width	330mm (standard)	
Blade angling	2 Cylinders	Ground Pressure(Tractor only)	40.2 kPa(0.41kg/cm ²)	
Bore x Stroke	90dia x 393 mm	Ground contact area	1.241 m ²	
Blade tilt	1 Cylinder	 Dozer Equipment		
Bore x Stroke	90dia x 145 mm			
Ripper lift	1 Cylinder			
Bore x Stroke	90dia x 393 mm			
SYSTEM REFILL CAPACITIES (Coolant and Lubricant)				
			Power-Angle tilt dozer	Angle dozer
System	Litres	Overall length with dozer mm	3765	3880
Cooling System	20	Blade length x height (mm)	2415 x 745	2875 x 685
Fuel Tank	115	Max. lift above ground (mm)	865	920
Engine Lub.Oil	12.5	Max. drop below ground (mm)	370	385
Transmission, bevel gear & steering	60	Max. tilt adjustment (mm)	350	300
Damper	0.7	Mass(kg)		
Final Drive	19	Dozer Attachment	850	930
Hydraulic tank	33	Hydraulic Control Unit	180	110
 Filteration System		Additional ground pressure kPa(kg/cm ²)	7.85 (0.08)	7.85 (0.08)
Engine	Replaceable micro paper element filter for lubrication as well as for fuel line			
Transmission	Replaceable element type of filter is provided			
Steering & Braking	One Magnetic oil strainer and a filter with replaceable element is provided for both steering & braking.			
Hydraulic System	Magnetic plug & replaceable element type filter is provided.			




BD31 BULL DOZER SPECIFICATIONS



BD31 BULL DOZER DIMENSIONS



BD31 WHEELED DOZER OPTIONAL ATTACHMENTS

MULTISHANK RIPPER		
Rigid, hydraulically controlled tool bar type ripper with 3 shanks. Fixed digging angle		
Additional Mass:(including ripper cylinder)	440 kg	
Beam length	1529mm	
Max. Lift above ground	440mm	
Max. digging depth	310mm	
TOWING WINCH		
For pulling, lifting and lowering materials of medium and heavy weight. Type: Single drum reversible, gear drive, hydraulically-operated type		
Additional Mass: (including ripper cylinder)	490 kg	
Winch dimensions		
Length	740mm	
Width	750mm	
Height	625mm	
BACKHOE		
Installed on rear of tractor for excavation and loading operations. Two bucket capacities are available, 0.20 m ³ and 0.13 m ³		
Bucket capacity	0.20 m ³	0.13 m ³
Additional mass	1600kg	1150kg
Bucket width	630mm	645mm
Max. reach	4950mm	4365mm
		

Note :

- 1) Materials & Specifications are subject to change without notice.
- 2) Illustrations may include optional equipment and accessories and may not include all standard accessories.
- 3) All the specifications meets relevant ISO Standard