

Zettelmeyer Wheel Dozer

made in W-Germany



Progress Is Our Tradition

Wheel Dozer ZD 3001

Tracks or Wheels –

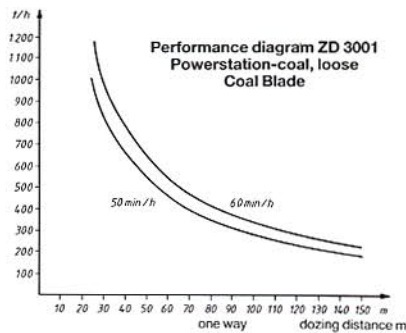
– a Matter of Traction, Maneuverability and Economy.

Developments within the tyre-industry like low profile tyres and radial tyres have led to maximum performance of wheel dozers since they can be operated at extremely low pressure. The above is proven by the supreme production performance of the wheel dozer.

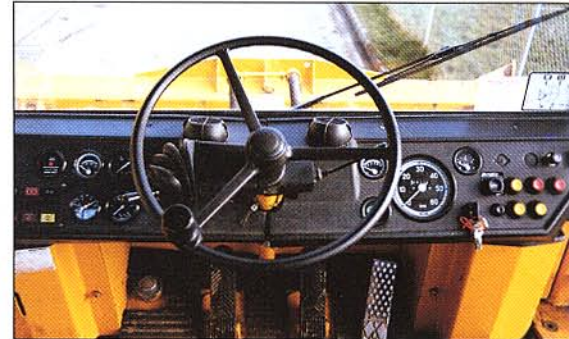
A low-maintenance articulation joint combines the advantages of axle tracking (low rolling resistance) with a maximum mobility. An additional advantage is the wide layout of the chassis which also provides the machine an excellent stability.

A high degree of mobility with fast working and transport speeds are the basis for an efficient performance, low wear and tear, longer life expectancy and lower operating costs result in a considerably better economy of the wheel driven concept.

In specific applications, for example piling of power station coal, road construction or sheer material handling high coefficients of traction are achieved by favourable wheel load distribution and axle oscillation.



With the flexibility of tyre pressures (0,8 – 4 bar) and the insueing ground pressure changes, traction and material compaction are also



A well-designed instrument panel within the driver's field of vision for comfortable work and maximum performance.

positively influenced (for example coal stock piling, handling of chips and tailings). Therefore additional cycles with compaction units become superfluous.

ZETTELMEYER offers two basic machines of this modern economically supreme wheel dozer concept.

Typical for the ZD 3001: operations in a coal mine.



ZD 3000 F

Two Dozer Concepts for Power and Mobility –
– for Boosting Productivity and Cost-Effectiveness in Operations



Three tyre types are well-proven for ZM-wheel dozers:
the two radial tyres 26.5 R 25
and the diagonal tyre 30/65-25 16 PR.

The ZD 3000 F with
hydropneumatic suspension in action.

The concept of ZETTELMAYER wheel dozers offers two possibilities:

For toughest operations – a low-maintenance central articulation joint.



For Applications, where Highest Mobility is Needed, the ZD 3000 F Fulfils the Requirements:

Hydropneumatic wheel suspension, 100% differential lock in both axles and a multi-function hydraulic dozer blade, controlled from the operator's seat, are standard equipment. To comply with most traffic regulations and to be roaded on free-ways at 60 km/h the machine's dozer blade can be folded back to 2.75 m total width and therefore requires no costintensive low-bed.

A hydraulically driven 20 t front-winch and further options add to the versatility of this wheel dozer version.

High-performance applications require the conventional ZD 3001 wheel dozer.

The outside-mounted blade-options (standard blade, universal-blade and coal blade) are controlled from the operator's seat and guarantee an efficient execution of specific jobs. An aircooled 10 cylinder deutz engine with 198 kW/269 hp, self locking differentials plus 100% differential locks, travel speeds of up to 40 km/h and working speeds of up to 20 km/h forward and reverse – are the features of a technically and ergonomically highly developed machine.

Operator's performance is positively enhanced by the large ROPS cab and dash board, designed to functional and ergonomical aspects. Optional equipment as for example the side-crane again render this machine versatile.



Engine

Make	Deutz/diesel, 4 cycle
Type	F 10L 413F
Gross Power @ 2200 rev/min	222/302 kW/hp
Net Power @ 2200 rev/min Din	198/269 kW/hp
Max. torque @ 1400 rev/min	1015 Nm
No. cylinders/configuration	10/V
Bore/stroke	125/130 mm
Total displacement	15953 cm ³
Combustion system	direct injection
Cooling	air

Electrical system:	
Battery	2 x 12/143 V/Ah
Alternator	28/55 V/A
Starter	24/5.4 V/kW



Transmission

ZD 3001

Full powershift planetary-type transmission with integral torque converter.

Four speeds forward/reverse. Soft-shift feature for full-power direction change in 1st and 2nd gear.

	Forward km/h	Reverse km/h
1st	6	6
2nd	12	12
3rd	27	27
4th	44	44

ZD 3000 F

Torque converter, 4-speed reversing, with mechanical shifting (Lock-up) in 3rd and 4th gear, planetary gear, fullpowershift.

	Forward km/h	Reverse km/h
1st	6	6
2nd	12	12
3rd	34	34
4th	62	62

Speeds with standard tyres



Axles

Front and rear axles have limited slip differentials and hydraulically actuated 100% differential locks. All-wheel drive, planetary final drive reduction.

For the ZD 3000 F the frame is hydropneumatically suspended via 4 spring suspension cylinders and allows speeds up to 62 km/h.

	ZD 3001	ZD 3000 F
Rear Axle Oscillation	± 7.5	± 6.0
Wheel lift max.	370 mm	370 mm
Wheel track	2060 mm	1960 mm
Axle load front	11.500 daN	12.000 daN
Axle load rear	13.000 daN	11.000 daN



Brakes

- Service brake ZD 3001: air over hydraulic actuated oil immersed multi-disc brakes hub mounted on all four wheels. Dual circuit for front and rear axles.
Service brake ZD 3000 F: 4-wheel air over hydraulic dual disk brake system.
- Parking brake: spring applied air released disc brake mounted at the transmission output shaft acting upon all four wheels.



Tyres

Tyres	Rim
Standard: Front & Rear 26.5 R 25	22.00-25
Optional: Front & Rear 30/65-25 16 PR	22.00-25

NOTE: Under certain job conditions the t-km/h capability of standard or optional tyres may be exceeded. We recommend that tyre manufacturers be consulted for optimum tyre selection.



Steering

Articulated frame steering with 40° steering angle to both sides. Semi integral power steering.

Two double-acting steering cylinders	
Bore and stroke	95 x 430 mm

Axial piston pump with constant flow rate and pressure-compensation control.

Flow @ 2200 rev/min	100 litres/min
Relief valve pressure	170 bar

Emergency steering pump: transmission mounted ground driven radial piston pump.



Blade Hydraulics

ZD 3001

One Double Acting Lift Cylinder, bore and stroke	140/890 mm
Two Double Acting Pitch Tilt Cylinders, bore and stroke	160/160 mm
Pump – Main System Primary – Gear Type: Flow @ 2200 rev/min	83.6 litres/min
Main System Relief Pressure	150 bar

Pressurised hydraulic tank acts as common reservoir for both steering and main hydraulic systems. 30 kPa relief valve. Filter and pump screen are serviceable without draining tank.

Rimpull max.	24500 daN
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ZD 3000 F

One Double Acting Lift Cylinder, bore and stroke	150/550 mm
Two Double Acting Pitch Tilt Cylinders, bore and stroke	110/140 mm
Pump – Main System Primary – Gear Type: Flow @ 2200 rev/min	83.6 litres/min
Main System Relief Pressure	200 bar

Pressurised hydraulic tank acts as common reservoir for both steering and main hydraulic systems. 30 kPa relief valve. Filter and pump screen are serviceable without draining tank.

Rimpull max.	23000 daN
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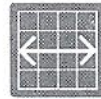


Service Refill Capacities

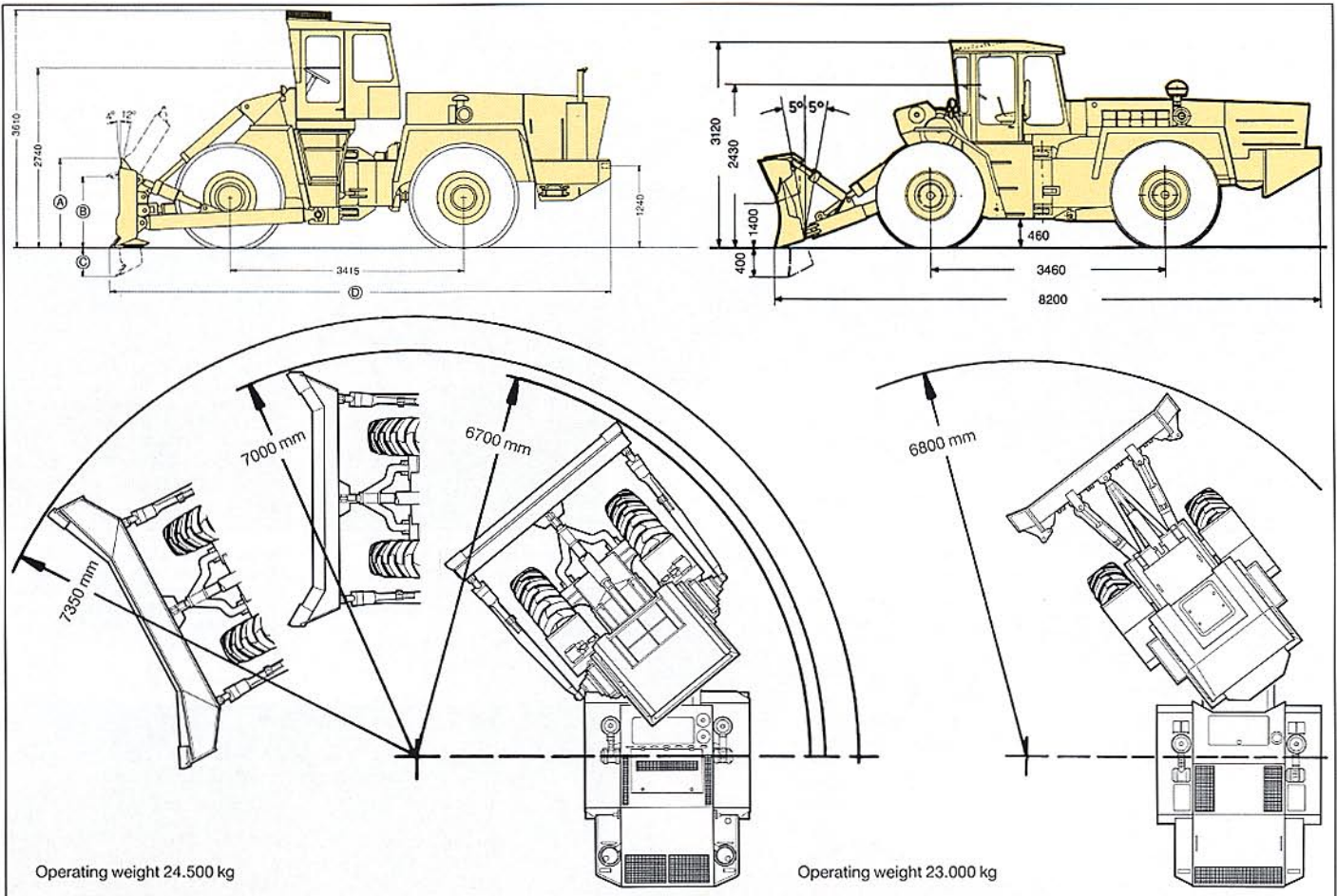
	ZD 3001	ZD 3000 F
Fuel tank	420.0 litres	420.0 litres
Engine	28.0 litres	28.0 litres
Hydraulic system incl. tank	435.0 litres	300.0 litres
Axles both	43.6 litres	43.6 litres
Hydraulic tank	400.0 litres	265.0 litres



Dimensions ZD 3001



Dimensions ZD 3000 F



GP Blade

Fast digging and grading for road building and highway construction, as well as its utility for all earthmoving applications are characteristic for this form of blade. Cutting edges are replaceable.

Width of blade	3550 mm
A Height of blade	1330 mm
B Lift height max.	1000 mm
C Digging depth max.	420 mm
D Total length	7250 mm
Pitch angle	± 8°
Tilt angle	± 12°



Blade Dimensions ZD 3000 F

The blade is 3500 mm (11'6") wide and 1350 mm (4'5") high. The ZD 3000 F moves up to 270 m³/h (353 cu. ft) at 30 m (33 yd) transport distance and soil density 2.25. The cutting edges are replaceable. The blade can be equipped with up to four front scarifiers which dig into the ground when the dozer moves backward and automatically flip up when it goes forward again. Digging depth up to 450 mm (1'6")

Picture shows pitching and blade angeling right



Universal Blade

The special design of this blade makes it suitable not only for earthmoving but also for loving transportation of loose materials like gravel, sand and coal. All functions of the machine can be controlled from the drivers seat.

Width of blade	4000 mm
A Height of blade	1600 mm
B Lift height max.	1000 mm
C Digging depth max.	380 mm
D Total length	7600 mm
Pitch angle	± 8°
Tilt angle	± 12°



Eight blade movements, infinitely variable, are hydraulically operated from the driver's seat - any two simultaneously. With a single lever the operator controls all operations - lifting/lowering, cutting angle, angling and tilting. This makes the ZD 3000 extremely easy to operate and a fast worker.

Picture shows lifting and tilting

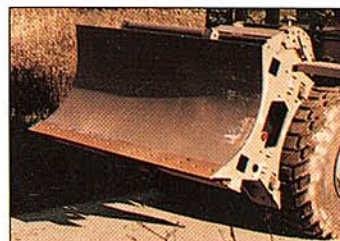


Coal Blade

A special form of blade for powerstation operation to transport coal.

High performance over long distances.

Width of blade	4600 mm
A Height of blade	1530 mm
B Lift height max.	1000 mm
C Digging depth max.	450 mm
D Total length	7850 mm
Pitch angle	± 8°
Tilt angle	± 12°



For highway travel, the two blade extensions are flapped in and locked in place, giving the ZD 3000 F a travelling width of only 2750 mm. This eliminates the need for the complicated mounting and dismounting process.

Further data:

Lifting height:	1400 mm (4'7")
Digging depth:	400 mm (1'4")
Tilt blade forward and back:	± 5°
Pitch angle:	± 16°
Tilt angle:	± 18°

Picture shows travelling position

Standard Equipment

Comfort-ROPS cab

- Detachable walk-through cab with flexible mountings located on the front frame for better sound and thermal insulation whilst providing excellent all-round visibility on the job.
- Insulation and acoustic lining
- Lockable doors
- 4-way adjustable driver's seat
- Passenger's seat
- Seat belts
- Steering wheel spinner knob
- Neutral start switch
- Gauges:
 - Fuel gauge
 - Hour meter
 - Speedometer (km/h)
 - Transmission temp. gauge
 - Transmission shift press. gauge
 - Hydraulic-pressure gauge
 - Dual air pressure gauge
 - Engine temperature gauge
 - Engine oil pressure gauge
- Indicator lamps for:
 - Direction indicator
 - Main beam
 - Battery charging
- Warning lights for:
 - Air filter restriction
 - Hydraulic filter restriction
 - Parking brake
 - Brake fluid
 - Emergency steering pump
- 24 V power socket
- Heater with defroster
- Instrument lighting
- Storage compartment in the cab

- Tool box
- Interior Lighting
- Radio
- Windscreen wiper front and rear
- Windscreen washer
- Sliding windows in the doors
- Sky-light
- General**
- Diesel engine with fuel saving direct injection
- Automatic drainage of air system
- Alcohol evaporator
- Tyre inflation kit
- Alternator 55 A
- Dry-type air filter with safety cartridge
- Cold start aid
- Transmission declutch
- Front working floodlights
- Fenders and service platforms
- Hoodsides
- Lockable fuel-tank cap
- Vertical exhaust
- Tow Hook
- External rear view mirrors
- Safety kit
- Counterweight
- Reversing lights

Optional Equipment

- Air Conditioner
- FOPS Guard
- FOPS Plate
- Optional Tyres
- Rotating beacon
- Donaldson Aircleaner
- Lifting eyes
- Dual air filtration
- Tyre fill
- Oil heater for cab
- 3-Way Alarm for:
 - Low Engine Oil Pressure
 - High-Coolant Temperature
 - High-Converter Temperature
- Complete system in accordance with German Road Traffic Reg.



Further cost benefits can be realised by installing the fully hydraulic sidemounted crane to help in a multitude of operations:

- pipelines
- transport of heavy equipment
- drainage and irrigation



For tough and frozen soils the ZD 3000 F can be equipped with 4 blade-mounted scarifiers which operate during the return cycle. Digging depth 340 mm.



A proof of the versatility of the ZD 3000 F: within seconds the two edges of the blade are folded and locked, giving the ZD 3000 F a travelling width of only 2750 mm: that also spells mobility!

A World-Wide Sales and Services Network for

- fast supply of spare parts
- customer service in your area
- trained service personnel
- expert advice on machine operation/application

We speak your language:



Zettelmeyer

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version.

Wheel Dozer 7.90 - Subject to change in design, weights and dimensions. Operating data in accordance with SAE standards. All technical Machine illustrations may show optional features.

