

Zettelmeyer

ZL 401 / 401 MP
Series B

Wheel Loader



Progress Is Our Tradition

Wheel Loaders ZL 401 / 401 MP



Engine

Make	Deutz/diesel, 4 cycle
Type	F2L511
Gross Power @ 3000 rev/min	28/38 kW/hp
Net Power @ 3000 rev/min Din 70020	26/35 kW/hp
Max. torque @ 2200 rev/min	90 Nm
No. cylinders/configuration	2/in-line
Bore/stroke	100/105 mm
Total displacement	1650 cm ³
Combustion system	direct injection
Cooling	air

Electrical system:

Battery	12/88 V/Ah
Alternator	14/65 V/A
Starter	12/2.4 V/kW



Transmission

Hydrostatic transmission, full powershift under load, both when changing direction (forward and reverse) and between work and travel range.

Inching pedal for variable machine speed control whilst maintaining engine power.

	Speed	
	Forward km/h	Reverse km/h
Work range	11.0	11.0
Travel range	20.0	20.0



Axles

All-wheel drive by two rigid axles with planetary hub reduction. 100%, hydraulically operated differential lock in both axles.

Ground clearance	305 mm
Track	1340 mm
Oscillation at wheel, max.	295 mm
Angle of oscillation	± 12.5°



Brakes

1. Normal retardation is effected by the braking capacity of the hydrostatic motor acting upon all four wheels.
2. Service brake: hydraulically actuated oil immersed multi-disc brakes in the rear axle.
3. Parking brake: mechanical actuation of drum brakes mounted in drive line.



Tyres

	Rim
Standard: 10.5 - 18 119 G	9 x 18
Optional: 15.5/55-R 18 134 E	11 x 18
12.5 - 18 125 G	11 x 18

NOTE: Under certain job conditions a specific tread pattern may be required or, 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

Central articulating oscillating joint with damping effect.

Angle of articulation ± 40°

Hydraulic steering via one double-acting steering cylinder.

Gear-type pump

Flow @ 3000 rev/min	12 litres/min.
Relief valve pressure	150 bar



Hydraulics

One double-acting tilt cylinder
One double-acting lift cylinder

Control valve three-spool system as standard equipment.

Gear-type pump

Flow @ 3000 rev./min.	33 litres/min.
Relief valve pressure	200 bar

Common tank for working, drive and steering hydraulics safeguarded by a breather valve.

Thermostatically controlled oil circuit with integrated cooling system.

Filters can be changed without having to drain the tank.

Lift time (loaded)	6.0 sec
Lowering time (empty)	3.5 sec
Dump time	2.5 sec
Crowd time	1.2 sec

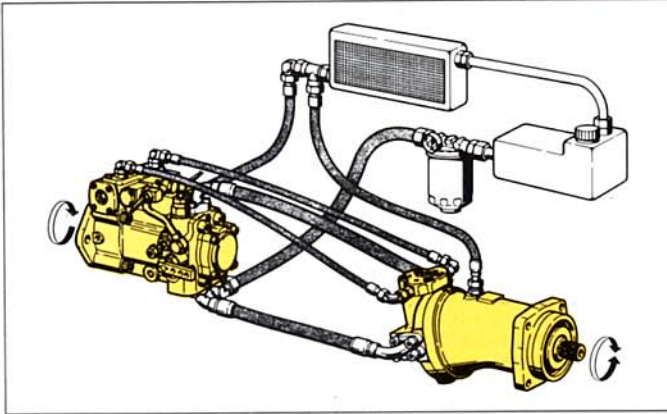


Service Refill Capacities

Fuel tank	45,0 litres
Engine	3,5 litres
Hydraulic system incl. tank	45,0 litres
Front axle	5,5 litres
Rear axle incl. transmission	6,0 litres

Series B

Cost Effective Hydrostatic Transmission



- maximum torque even at low engine speed
- low fuel consumption
- better efficiency on the job
- wear-free hydrostatic braking
- infinitely variable speed control over full speed range
- simple forward-reverse direction change under full load

Well Proven Design Provides Reliability, High Performance and Economical Operation



Flexibly mounted ROPS safety cab with good all-round visibility. Easy to enter and leave from both sides.



Clearly arranged dashboard and low effort control levers.



For coping with extreme operating conditions – a low maintenance articulating oscillating joint.



Powerful, air-cooled diesel engine – with easy access for maintenance.

Maintenance Free and Low Wear Service Brake in Rear Axle

- closed service braking system integrated in the axle, providing protection against dirt and humidity
- hydraulically operated, oil-immersed multi-disc brakes
- easy service access
- separate parking drum brake, mounted in drive line

With More than 40 Different Attachments Available the ZL 401 Demonstrates Unrivalled Versatility in a Wide Range of Applications.

The ZL 401 with Quick-Change Attachment Carrier on the Lift Arms

The Zettelmeyer »QC« quick-change system allows all direct mounted ZL 401 buckets and attachments to be also used as quick-change attachments. The system is well proven and very simple in operation.



A combination of the ZL 401 and the comprehensive range of »QC« attachments provides a versatile materials handling system, which can make one man a workforce.



Standard bucket, loading fork

The ZL 401 MP – a Multi-Purpose System that Provides Interchangeability between Complete Units.



Loading fork



Fork-lift mast
1.5 t payload with 3.25 m lifting height*
0.6 t payload with 5.05 m lifting height*



Dumper unit, 1.2 m³ capacity



Zettelmeyer »MP« system – with the loader frame removed, the ZL 401 can be converted to a vertical mast fork-lift or forward tip dumper, self-contained salt spreader, high lift loader, or sweeper. Changing to or from any of these attachments requires the removal of only one pin and connection of the hydraulics by quick release couplings. Its off-road capability and high tipping load permit safe and reliable operation in many difficult applications. For added versatility the loader frame can also be equipped with the Zettelmeyer »QC« system.



Series B



Operating Data

Buckets Dimensions and weights with standard tyres and 160 kg standard counterweight.	Bucket	Bucket	Bucket	Bucket	Bucket	4 in 1 Bucket	High-Tip Bucket	
Material density max	t/m ³	2.3	1.8	1.5	1.2	0.8	1.8	1.0
Capacity, heaped	m ³	0.4	0.5	0.6	0.75	1.0	0.45	0.75
Capacity, struck	m ³	0.33	0.44	0.52	0.67	0.87	0.35	0.65
Payload	kg	920	900	900	900	800	810	750
Bucket weight with teeth	kg	190	205	235	250	295	380	450
Bucket teeth		6	6	6	6	6	6	-
Static tipping load, straight	kg	2440	2430	2380	2330	2230	2170	2120
Static tipping load at 40°	kg	2160	2140	2100	2060	1970	1920	1870
Breakout force	daN	2600	2200	2000	1700	1400	2100	1400
Hydraulic lifting capacity, max.	daN	1930	1900	1850	1800	1750	1650	1600
Operating weight	kg	3235	3250	3280	3295	3340	3425	3495

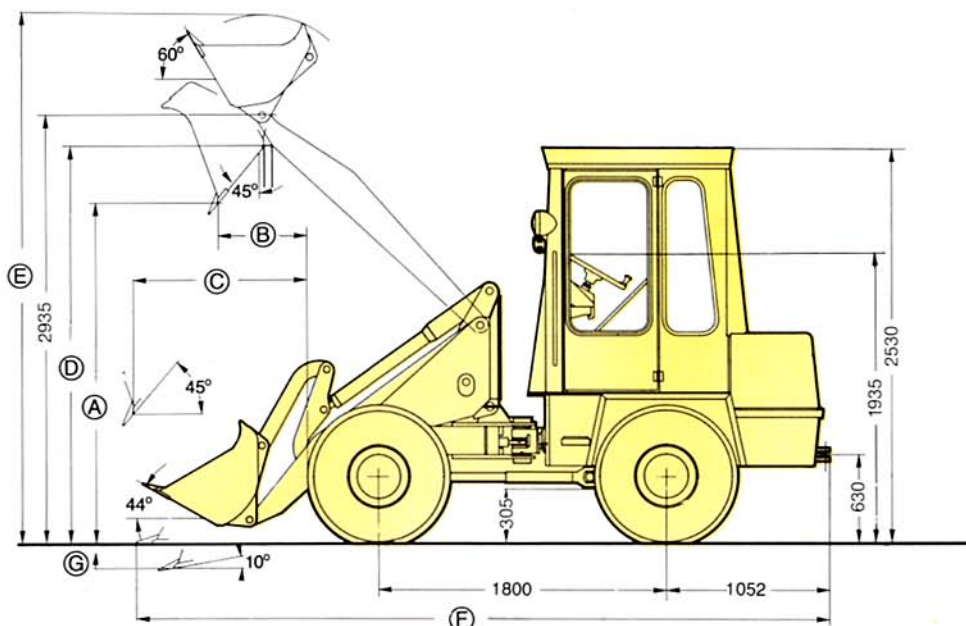


Dimensions

Adjustments for tyres	Tipping Load at 40° kg	Operating Weight kg	Vertical Dimensions mm
12.5-18	+ 30	+ 60	+ 30

(A) Dump height	mm	2405	2330	2300	2205	2105	2305	3405
(B) Reach at max. height	mm	665	735	770	865	965	720	910
(C) Reach max.	mm	1330	1400	1435	1530	1630	1385	1925
(D) Load over height	mm	2710	2710	2710	2710	2710	2730	3430
(E) Lift height max.	mm	3550	3630	3730	3810	3940	3720	4510
(F) Total length	mm	4620	4720	4770	4900	5040	4750	4920
(G) Digging depth at 10°	mm	200	210	220	240	265	240	270
Turning radius, outside bucket	mm	3640	3660	3680	3720	3760	3680	3740
Bucket width	mm	1650	1650	1650	1650	1650	1650	1650

Operating data in accordance with SAE standards. All technical data relate to the standard version. Machine illustrations may show optional features.



All dimensions relate to standard tyres.

Width across standard tyres 1610 mm.

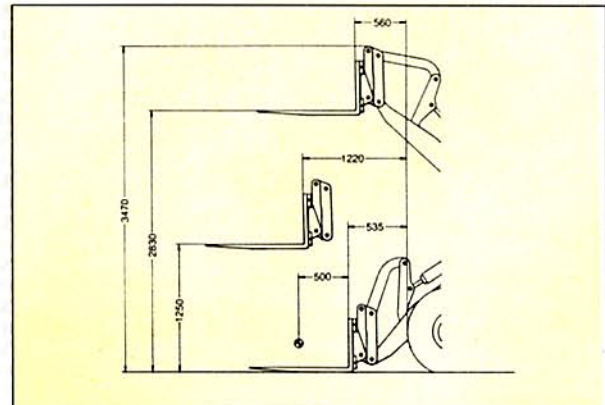
Standard Equipment

- Comfort ROPS cab
- Walk-through cab with flexible mountings
- Insulation and acoustic lining
- Lockable doors
- Single lever control
- 3-way adjustable driver's seat
- Seat belt
- Steering wheel spinner knob
- Neutral start switch
- Gauges:
 - Fuel gauge
 - Hour meter
- Indicator lamps for:
 - Direction indicator
 - Main beam
 - Battery charging
- Warning lights for:
 - Engine oil pressure
 - Drive system oil temperature
 - Air filter restriction
- Central audible alarm for:
 - Engine temperature
 - Drive system oil temperature
- 12 V power socket
- Heater with defroster
- Instrument lighting
- Storage compartment in the door
- Tool box (lockable)
- Tinted safety glass (windscreen)
- Windscreen wiper front and rear
- Sliding windows in the doors
- General**
- Alternator 65 A
- Dry-type air filter
- Auxiliary hydraulics, front
- Single lever control
- Extended lift arms
- Fenders and service platforms
- Lockable engine hood
- Lockable fuel-tank cap
- Vertical exhaust
- Towing device
- External rear view mirrors
- Safety kit



Optional Equipment

- Cold start aid
- Dual air filtration
- Dashboard cover
- Auxiliary hydraulics, rear PTO (hydraulic)
- Windscreen washer
- Lifting eyes
- Hinge-out cab roof hatch
- FOPS guard
- FOPS plate
- »QC« Quick-change attachment carrier, mechanical
- Attachments:
 - Loading fork
 - Hook and tackle
 - Barrel clamp
 - Pusher plate
 - Angle dozer blade
 - Sweeper
 - Manure fork
 - Tree transplanter
 - Tree transplanting bucket
- »MP« multi purpose system
- MP units:
 - MP loader unit
 - MP fork lift mast
 - MP dumper unit
 - MP sweeper unit
 - MP dozer unit
- Wide range of bucket sizes and types with or without teeth
- Silo bucket
- Extra-wide bucket
- Brick bucket
- Bolt-on cutting edge
- Optional high-speed version (work range 15 km/h, travel range 30 km/h)
- Snow plow
- Salt and sand spreader
- Front winch
- Rock clamp
- Ground auger
- Hydraulic breaker
- Front scarifier



	Without counterweight (valid for all tyres)	With 160 kg counterweight (valid for all tyres)
Tipping load articulated (DIN 24094) kg	1400	1580
Lifting Force daN	1500	1500
Payload (acc. TBG) smooth ground kg	1120	1260
rough ground kg	700	790

Data only applicable to Zettelmeyer Loading Fork Code 9323 and Centre of Gravity Distance 500 mm.