

Zettelmeyer ZL 502 Series C



Tough and Flexible on any Job

- **High-performance, low environmental impact diesel engine:** quiet, low emissions, economical fuel consumption.
- **Hydrostatic drive** with significant advantages:
 - Easy to operate due to automatic drive facility
 - Maintains high drawbar pull even when working hydraulics are engaged
 - Advantageous hydrostatic brakes, wear-free and safe
- **Powerful Z-bar loader-linkage** with two lifting cylinders:
 - High breakout force and lifting capacity in bucket applications
 - Excellent fork-lift capacity
- **Operator-selected 100% differential lock** on both axles to give optimum traction.
- **Standard hydraulic quick-change coupling:** Various tried-and-tested attachments for a wide range of applications
- **Purpose designed cab comfort**
 - Multi-function lever
 - Audio-visual warning system for monitoring operating systems
- **Gross Power:**
SAE J1995 36/48 kW/hp
Net Power:
SAE J1349 35/47 kW/hp
- **Operating Weight:**
4,4 t (9700 lb)
- **Bucket Capacities:**
0,7 - 1,3 m³ (0,9 - 1,7 yd³)

Zettelmeyer



ENGINE

Engine: in-line 4-cylinder, 4 stroke, direct injection diesel engine, oil/air cooled.

Two-stage air cleaning:

1. Paper filter with indicator in cab
2. Safety filter

Make	KHD			
Type	F4 L 1011 F			
Gross power @	2800	r/min	(46,7	r/s)
SAE J1995	36	kW	(48	hp)
Net power @	2800	r/min	(46,7	r/s)
SAE J1349	35	kW	(47	hp)
DIN 70020 / 6271	35	kW	(47	hp)
Max. torque @	1800	r/min	(30	r/s)
SAE J1349 netto	129	Nm	(95	lbf/ft)
DIN 70020 / 6271	129	Nm	(95	lbf/ft)
No. cylinders	4			
Cubic capacity	2,73	l	(167	in ³)
Bore	91	mm	(3,6	in)
Stroke	105	mm	(4,1	in)

Electrical System

Rated voltage	12	V		
Battery voltage	12	V		
Battery capacity	88	Ah		
Alternator rating	840/60	W/A		
Starter motor output	2,2	kW	(3,0	hp)



DRIVETRAIN

Transmission: hydrostatic transmission, full power shift under load, both when changing direction (forward/reverse) and between first and second range. Maximum pushing force can be achieved in both ranges.

Inch/brake pedal for variable machine speed control.

Multi-function lever for change of direction, differential lock and use of the servo-control.

Axles: all-wheel drive by two rigid portal axles.

Differential lock: hydraulically actuated 100% differential locks in both axles.

Frame: solid front and rear frames, robot-welded. Center articulating-oscillating joint for optimum manoeuvrability and traction.

Oscillation at wheel, max.	250	mm	(10"	in)
Track	1382	mm	(54"	in)
Angle of oscillation	± 10	°		

Standard tires	Size	12.5-18		
	Rim	11 x 18		

Speed, max.:				
1st range,				
forward/reverse	7,0	km/h	(4,3	mile/h)
2nd range,				
forward/reverse	20,0	km/h	(12,4	mile/h)



SERVICE FILL CAPACITIES

Engine	10,5	l	(2,8	US gal)
Fuel tank	60,0	l	(15,9	US gal)
Front axle, total	10,0	l	(2,6	US gal)
Rear axle, incl. drop-box	11,0	l	(2,9	US gal)
Hydraulic tank, incl. hydraulic system	60,0	l	(15,9	US gal)



BRAKING SYSTEM

Service brake: reliable dual braking system, acting upon all four wheels.

1. Wear-free, hydrostatic inching brake.
2. Central friction brake, actuated via "inch/brake pedal".
First stage of pedal application actuates the inching facility, the last third of pedal application applies the central friction brake.

Parking brake: central drum brake, acting upon all four wheels.



HYDRAULIC SYSTEM

Thermostatically controlled oil circuit with integrated cooling system and electrically switched fan.

Hydraulic control valve: Servo-controlled, double-acting control valve with three-spool system, with primary and secondary pressure valves.

1. Lifting function
2. Tilting function
3. Optional additional function for hydraulic QC:
lock, neutral, unlock
Preparation for operating hydraulic attachments with this function is available as an option.

Hydraulic oil filter: main stream filter cartridge with 10 µm filtration in the return-line. Suction filter for the drive assembly with 10 µm filtration. The filters can be replaced without emptying the tank.

Lifting frame: Z-bar linkage
2 Lift cylinders
1 Tilt cylinder

Hydraulic pump				
Flow	45	l/min	(11,9	US gal/min)
@ engine rpm	2800	r/min	(46,7	r/s)
Relief valve pressure	23	MPa	(3335	psi)

Lift time (loaded)	6,0	sec		
Lowering time (empty)	3,0	sec		
Dump time	1,0	sec		
Crowd time	1,0	sec		



STEERING

Hydraulic steering. Central articulating-oscillating joint with damping effect.

Steering pump: gear-type pump.

Steering cylinder: 1 double-acting steering cylinder.

Steering				
Angle of articulation	± 39	°		
Steering pump				
Flow	22	l/min	(5,8	US gal/min)
@ engine rpm	2800	r/min	(46,7	r/s)
Relief valve pressure	17	MPa	(2470	psi)

Expert in Bulk Handling - the New C

High production, especially with pallets



...so comfortable

The roomy cab offers a high level of operator comfort making operation fun: well laid out cockpit, individually adjustable, comfortable operator seat, variable ventilation and heating. Phantastic panoramic view for precise control of machine. Simplified operation using the dual inch/brake pedal and the multi-function lever.



Operation as you choose!

New: control direction of travel, neutral and differential lock by simply pressing a button on the multi-function lever or conventionally using the direction lever on the steering column.



...so mobile

Difficult terrain? No problem as every Allrounder has operator-selected 100% differential lock standard in both axles. And, in addition, portal axles with high ground clearance. Optimum manoeuvrability is ensured even on twisty, narrow sites due to the articulating-oscillating joint and the machines' special design: no single element protrudes beyond the width defined by the wheel rim - even the doors stop open within this contour.



Z-bar loader-linkage - robust multi-purpose loader-linkage with high breakout and lift forces. Powerful in loading and production.

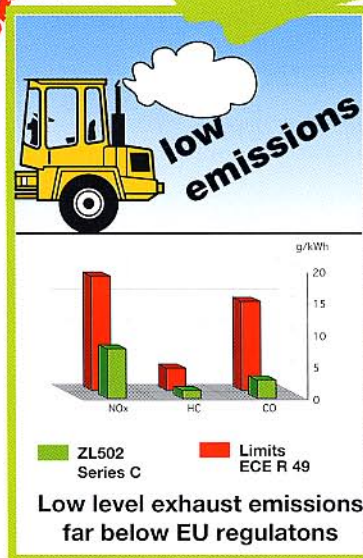
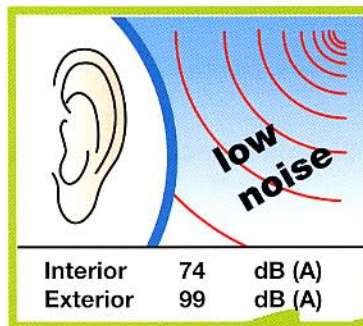
...so versatile

You need more than just for a Zettelmeyer Allrounder attachments, it replaces a special machines. Loading buckets...with a choice of right one for your application. Re-equipping is child's play strengthened, standard h

Generation ZL502 Series C

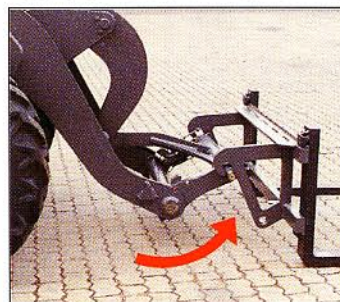
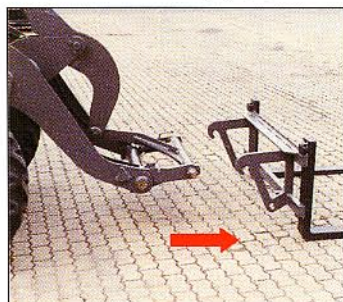
...so reliable

Zettelmeyer wheel loaders - uncompromising performance. Tried-and-tested, high-quality components and carefully planned design: single engine cover and transversely-mounted engine for simple service. Durable hydrostatic transmission for constant power. Strong diesel engines with high power potential. Exemplary environmental features: economic use of fuel, low emissions during operation and reduced noise emission.



In an instant, your wheel loader becomes a multi-functional Allrounder

Is your wheel loader? A clear case for! With the correct whole series of expensive working forks, sweepers, of over 60 attachments, the solution is bound to be available. Try with the newly hydraulic quick-coupler.



Approach

-

Attach

-

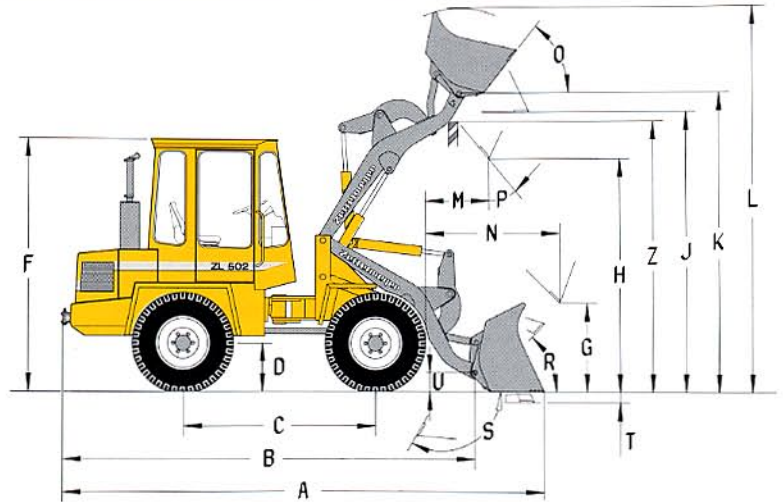
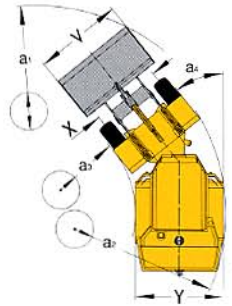
Ready!

ZL 502 Series C

DIMENSIONS*



B	4270	mm (14' 0" ft in)
C	2000	mm (6' 7" ft in)
D	430	mm (1' 5" ft in)
F	2585	mm (8' 6" ft in)
G	920	mm (3' 0" ft in)
J	2940	mm (9' 8" ft in)
K	3090	mm (10' 2" ft in)
O	53	°
P	45	°
R	50	°
S	143°	
U	150	mm (0' 6" ft in)
X	1382	mm (4' 6" ft in)
Y	1730	mm (5' 8" ft in)
Z	2850	mm (9' 4" ft in)
a ₂	3750	mm (12' 4" ft in)
a ₃	1980	mm (6' 6" ft in)
a ₄	± 39	°



* measured with bucket 0,7 m³ (0,9 yd³), standard quick-change mounting and 12.5-18 tires



OPERATING DATA

Bucket Type (quick-change mounting standard equipment)		General Purpose Bucket		Light Material Bucket		4-in-1 Bucket	High-Tip Bucket
Edge: straight (G) with / without (+ / -) teeth		G + / -		G -		G +	G -
Capacity heaped	m ³ (yd ³)	0,7 (0,9)	0,8 (1,0)	1,1 (1,4)	1,3 (1,7)	0,7 (0,9)	1,2 (1,6)
Material density	kg/m ³ (lb/yd ³)	1900 (3200)	1700 (2850)	1200 (2000)	900 (1500)	1800 (3050)	900 (1500)
Static tipping load, straight (ISO)	kg (lb)	3400 (7500)	3350 (7400)	3230 (7100)	3150 (6950)	3100 (6850)	2900 (6400)
Static tipping load, full turn (39° ISO)	kg (lb)	2800 (6200)	2760 (6100)	2700 (5600)	2620 (5800)	2550 (5600)	2370 (5250)
Hydraulic lifting capacity, max.	kN (lbf)	32,7 (7350)	32,0 (7190)	30,6 (6880)	30,1 (6770)	29,5 (6630)	27,6 (6200)
Breakout force	kN (lbf)	40,2 (9040)	40,0 (8990)	30,2 (6790)	28,5 (6410)	37,0 (8320)	- (-)
A Total length	mm (ft in)	4990 (16' 4")	5030 (16' 6")	5235 (17' 2")	5285 (17' 4")	5240 (17' 2")	5530 (18' 2")
L Lift height, max.	mm (ft in)	3920 (12' 10")	3970 (13' 0")	4110 (13' 6")	4160 (13' 8")	3960 (13' 0")	4750 (15' 7")
V Bucket width	mm (ft in)	1750 (5' 9")	1750 (5' 9")	1900 (6' 3")	1900 (6' 3")	1750 (6' 3")	1900 (6' 3")
a ₁ Clearance circle	mm (ft in)	8100 (26' 7")	8130 (26' 8")	8350 (27' 5")	8480 (27' 10")	8200 (26' 11")	8650 (28' 5")
T Digging depth	mm (ft in)	90 (0' 4")	140 (0' 6")	140 (0' 6")	140 (0' 6")	140 (0' 6")	140 (0' 6")
H Dump height	mm (ft in)	2500 (8' 2")	2440 (8' 0")	2290 (7' 6")	2260 (7' 5")	2390 (7' 10")	3530 (11' 7")
M Reach at max. height	mm (ft in)	820 (2' 8")	740 (2' 5")	890 (2' 11")	920 (3' 0")	790 (2' 7")	1210 (4' 0")
N Reach, max.	mm (ft in)	1500 (4' 11")	1420 (4' 8")	1570 (5' 2")	1600 (5' 3")	1470 (4' 10")	2170 (7' 1")
Operating weight	kg (lb)	4400 (9700)	4410 (9720)	4460 (9830)	4480 (9880)	4570 (10075)	4735 (10440)
Loading Fork, centre of gravity 500 mm (1 ft 6 in)				with additional counter-weight 190 kg (420 lb)			
Tipping load, full turn acc. to ISO 8313	kg (lb)	2000 (4410)		2200 (4050)			
Payload acc. to EN 474-3, 80%	kg (lb)	1600 (3530)		1750 (3860)			
Payload acc. to EN 474-3, 60%	kg (lb)	1200 (2645)		1300 (2865)			

STANDARD EQUIPMENT

Cab, Exterior

Removable ROPS/FOPS-cab with flexible mountings

Walk-through cab
Lockable doors

Tinted safety glass (front and rear)
Windscreen wiper (front and rear)
Windscreen washer (front and rear)
Sliding window in the left door
Door stops
External rear view mirrors (right and left)

Cab, Interior

4-way adjustable driver's seat
Seat belt
Sunvisor
Heater with air-filter and defroster
Cab ventilation
Cab lighting
Storage box in the cab
Tool box

Instrument Panel

with symbols:
Instrument lighting
12 V power socket
Horn
Safety start

Gauges:
Fuel gauge
Hour meter
Drive system oil temperature

Indicator lamps for:
Indicators (left/right)
Parking brake
Main beam
Pre-heater
Battery charging
Differential locks
Hazard warning flashers
Direction (forward/reverse)

Central audio-visual alarm for:
Engine temperature
Engine oil pressure
Drive system oil temperature
Air filter restriction
Parking brake

Exterior Lighting

Main head lights (Halogen):
full/dipped/asymmetrical
Parking lights
Rear lights
Brake lights
Direction indicators
Hazard warning lights
Reversing lights

Powertrain

Diesel engine with direct fuel injection
Cold start aid
Two-stage dry-type air filter
Alternator 60 A
Operator-selected 100% differential lock
Tires 12.5-18

Hydraulic System

Control valve three-spool system
Third hydraulic circuit

Service and Maintenance

Tool kit

Working Equipment

Multi-function lever
Bucket level indicator
Hydraulic quick-change attachment carrier

Carriage Body

Fenders and mudguards, front and rear
Lockable engine hood
Lockable fuel-tank cap
Vertical exhaust
Towing device

Complete system in accordance with German road traffic regulations
Sound insulation acc. to EU-guidelines
Safety standards according to EC-directive 89/392/EEC



OPTIONAL EQUIPMENT

Cab

Handthrottle
Hand control inch valve
Heating independent of engine
Radio
Sliding window in the right door

ROPS-Bar (folding)
Canopy for ROPS Bar

Safety

Protective guards for
Main head lights
Working lights
Rear lights

Rotating beacon (yellow)
Audible reverse alarm
Counterweight

Powertrain

Pre-heater
Catalytic converter
Extra fuel filter
Pre-cleaner with ejector
Two-stage filter (oil bath)

Service and Maintenance

Wheel nut wrench

Working Equipment

Working lights (front and rear)
ZLS load stabilizer
Extended lift arms

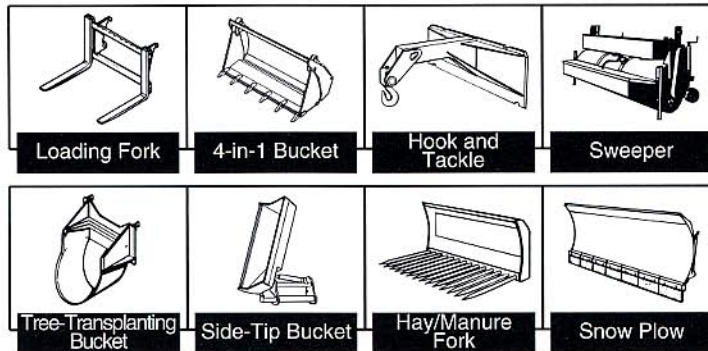
Extra hydraulics, rear
Additional hydraulics for attachment carrier
4th hydraulic circuit

ATTACHMENTS

Buckets

of various sizes
0,7 - 1,3 m³ (0,9 - 1,7 yd³)
with or without teeth

Wide range of bucket types, eg
Light material bucket (with or without teeth)
High-tip bucket (without teeth)
Side-tip Bucket (without teeth)
4-in-1 bucket (with teeth)
Brick bucket (with teeth)
Horticultural bucket
Bolt-on cutting edge



Further buckets and attachments available on request

Selection of Attachments, eg for

Timber industry:
Log grapple
Loading fork with log grapple
Road building/industry:
Loading fork
Hook and tackle
Municipal application:
Sweeper
Angle dozer blade
Snow plow
Horticulture and agriculture:
Hay/Manure fork
Front scarifier

*Under our policy of continuous product improvement, we reserve the right to change specifications and design without prior notice.
The illustrations do not necessarily show the standard version of the machine.*

Zettermeyer GmbH

Max-Planck-Straße 1 • D-54329 Konz-Könen
Postfach 13 40 • D-54323 Konz
Germany

Ref. No. Zettermeyer G. 29054346
Volvo Parts 21 1 430 5033
Printed in Germany 9.96 ENGLISCH