

# Zettelmeyer ZL 702 Series C



## *Specialist for High Payloads*

- **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 loading fork lifting capability.
- **Operator-selected 100% differential locks** 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 51/68 kW/hp  
**Net Power:**  
SAE J 1349 48,5/65 kW/hp
- **Operating Weight:**  
5,0 t (11020 lb)
- **Bucket Capacities:**  
0,9 -1,5 m<sup>3</sup> (1,2 - 1,9 yd<sup>3</sup>)

**Zettelmeyer**



## ENGINE

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

### Two-stage air cleaning:

1. Paper filter with indicator
2. Safety filter

Make	KHD		
Type	BF 4L 1011 F		
Gross power @	2300	r/min	(38,3 r/s)
SAE J1995	51	kW	(68 hp)
Net power @	2300	r/min	(38,3 r/s)
SAE J1349	48,5	kW	(65 hp)
DIN 70020 / 6271	48,5	kW	(65 hp)
Max. torque @	1800	r/min	(30 r/s)
SAE J1349 netto	220	Nm	(162 lbf ft)
DIN 70020 / 6271	220	Nm	(162 lbf ft)
No. cylinders	4		
Cubic capacity	2,73	l	(167 in <sup>3</sup> )
Bore	91	mm	(0' 3,6" in)
Stroke	105	mm	(0' 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 and reverse) and between ranges. Maximum pushing force can be achieved in both ranges. Inch/brake pedal for variable machine speed control and power transfer to bucket hydraulics at constant engine rpm.

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 frame, robot-welded. Articulating oscillating joint for optimum manoeuvrability and traction.

Oscillation at wheel, max.	250	mm	(0' 9" in)
Track	1472	mm	(4' 11" in)
Angle of oscillation	± 10	°	

Standard tires	Size	405/70 R20
	Rim	13 x 20

Speed, max.			
1st range	8,0	km/h	(5,0 mile/h)
forward/reverse			
2nd range	20,0	km/h	(12,4 mile/h)
forward/reverse			



## 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	(2,6 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 on 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 three spool system, with primary and secondary pressure valves.

1. Lifting function
2. Tilting function
3. Additional function for hydraulic QC  
Unlock, neutral, lock  
Preparation for operating hydraulic attachments with this function is available as an option.

**Hydraulic oil filter:** main stream filter cartridge with a 10 µm filtration in the return-line. Suction filter for the drive assembly with a 10 µm filtration.

The filters can be replaced without emptying the tank.

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

Hydraulic pump			
Flow	52	l/min	(1,2 US gal/min)
@ engine rpm	2300	r/min	(38,3 r/s)
Relief valve pressure	23	MPa	(3340 psi)

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



## STEERING

Hydrostatic steering. Central articulating joint with damping effect.

**Steering pump:** gear-type pump

**Steering cylinder:** 1 double acting steering cylinder

Steering			
Angle of articulation	± 39	°	
Steering pump			
Flow	25	l/min	(6,6 US gal/min)
@ engine rpm	2300	r/min	(38,3 r/s)
Relief valve pressure	17	MPa	(2470 psi)



# Strong and extremely Steady - the New Generation ZL702 Series C

**Stable design, expert for heavy loads**



**...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. Fantastic panoramic view for precise control of machine. Simplified operation using the dual inch/brake pedal and the multi-function lever.



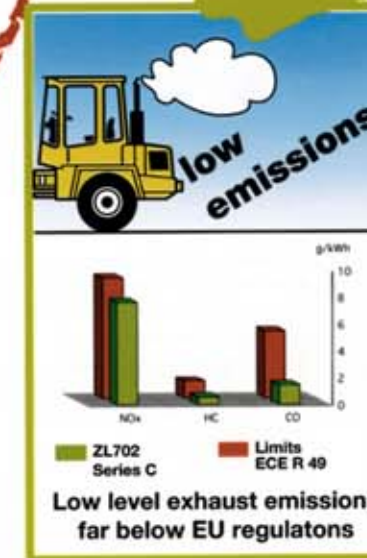
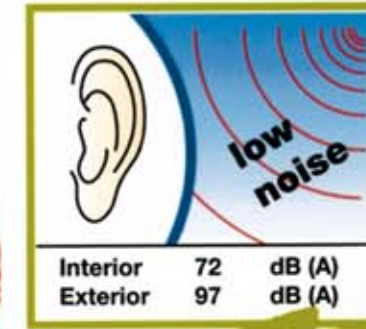
**...so reliable**

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.



**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 a wheel loader? A clear case for a Zettelmeyer Allrounder! With the correct attachments, it replaces a whole series of expensive special machines. Loading forks, sweepers, buckets...with a choice of over 60 attachments, the right one for your application is bound to be available. Re-equipping is child's play with the newly strengthened, standard hydraulic quick-coupler.

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



**Approach**

**Attach**

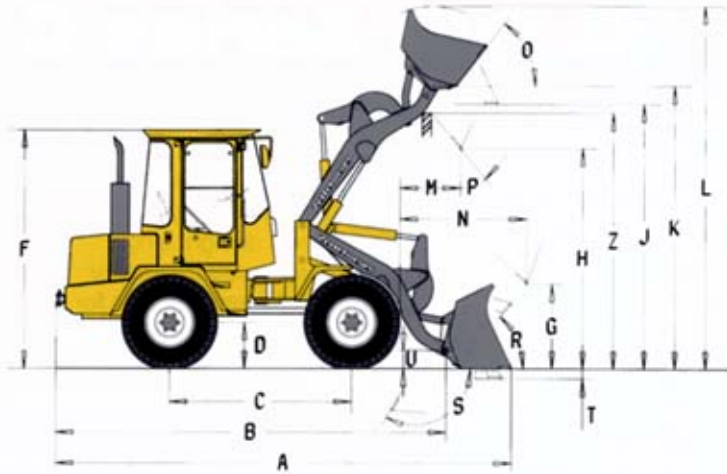
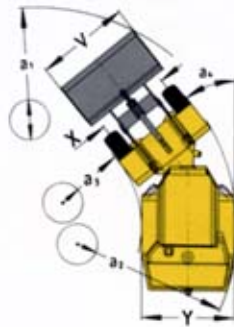
**Ready!**





**DIMENSIONS\***

- B 4270 mm (14' 0" ft in)
- C 2000 mm ( 6' 7" ft in)
- D 420 mm ( 1' 5" ft in)
- F 2640 mm (8' 8" ft in)
- G 960 mm ( 3' 2" ft in)
- J 2930 mm ( 9' 7" ft in)
- K 3130 mm (10' 3" ft in)
- O 53 °
- P 45 °
- R 50 °
- S 143 °
- U 200 mm ( 0' 8" ft in)
- X 1472 mm ( 4' 10" ft in)
- Y 1895 mm ( 6' 3" ft in)
- Z 2850 mm ( 9' 4" ft in)
- a<sub>2</sub> 3800 mm (12' 6" ft in)
- a<sub>3</sub> 1875 mm ( 6' 2" ft in)
- a<sub>4</sub> ± 39 °



\* measured with bucket 0,9 m<sup>3</sup> (1,2 yd<sup>3</sup>) standard quick-change mounting and 405/70 R20 tires



**OPERATING DATA**

Bucket Type (quick-change mounting standard equipment)		General Purpose Bucket		Light Material Bucket		4-in-1 Bucket	High-Tip Bucket
		G +/-	G +	G -	G +	G -	
Capacity heaped	m <sup>3</sup> (yd <sup>3</sup> )	0,9 (1,2)	1,1 (1,4)	1,3 (1,7)	1,5 (1,9)	0,85 (1,1)	1,5 (1,9)
Material density	kg/m <sup>3</sup> (lb/yd <sup>3</sup> )	1800 (3050)	1400 (2560)	1100 (1850)	900 (1520)	1700 (2860)	900 (1520)
Static tipping load, straight (ISO)	kg (lb)	3950 (8710)	3850 (8490)	3780 (8330)	3700 (8157)	3650 (8050)	3400 (7500)
Static tipping load, full turn (39° ISO)	kg (lb)	3240 (7140)	3150 (6940)	3050 (6720)	2980 (6570)	2900 (6390)	2700 (5950)
Hydraulic lifting capacity, max.	kN (lbf)	37,0 (8320)	35,5 (7980)	35,0 (7670)	34,0 (7650)	33,5 (7530)	32,5 (7300)
Breakout force	kN (lbf)	41,0 (9220)	32,0 (7190)	30,0 (6740)	27,0 (6070)	36,5 (8200)	- (-)
A Total length	mm (ft in)	5020 (16' 6")	5200 (17' 1")	5250 (17' 3")	5350 (17' 7")	5250 (17' 3")	5500 (18' 1")
L Lift height, max.	mm (ft in)	4010 (13' 2")	4160 (13' 8")	4200 (13' 9")	4300 (14' 1")	4000 (13' 1")	4980 (16' 4")
V Bucket width	mm (ft in)	1900 (6' 3")	1900 (6' 3")	1900 (6' 3")	1900 (6' 3")	1900 (6' 3")	1900 (6' 3")
a <sub>1</sub> Clearance circle	mm (ft in)	8300 (27' 3")	8400 (27' 7")	8440 (27' 8")	8500 (27' 11")	8400 (27' 7")	8600 (28' 3")
T Digging depth	mm (ft in)	90 (0' 4")	90 (0' 4")	90 (0' 4")	90 (0' 4")	90 (0' 4")	90 (0' 4")
H Dump height	mm (ft in)	2490 (8' 2")	2340 (7' 8")	2300 (7' 7")	2230 (7' 10")	2400 (7' 10")	3580 (11' 9")
M Reach at max. height	mm (ft in)	760 (2' 6")	830 (2' 9")	870 (2' 10")	940 (3' 1")	760 (2' 6")	1160 (3' 10")
N Reach, max.	mm (ft in)	1450 (4' 9")	1520 (5' 0")	1550 (5' 1")	1620 (5' 4")	1450 (4' 9")	2120 (6' 11")
Operating weight	kg (lb)	5000 (11020)	5040 (11110)	5040 (11110)	5070 (11180)	5180 (11420)	5320 (11730)
<b>Loading Fork, centre of gravity 500 mm (1 ft 6 in)</b>							
Tipping load, full turn acc. to ISO 8313	kg (lb)	2500 (5510)					
Payload acc. to EN 474-3, 80%	kg (lb)	2000 (4410)					
Payload acc. to EN 474-3, 60%	kg (lb)	1500 (3310)					



**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

Sunblind  
Heater with air-filter and defroster  
Cab lighting  
Cab ventilation  
Storage box in the cab  
Tool box

**Instrument Panel**

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

Gauges:  
Engine temperature  
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  
Dry-type air filter

Alternator 60 A

Hydrostatic drive  
Operator-selected 100% differential locks  
Tires 405/70R20

**Hydraulic System**

Gear-type pump  
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/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

 Certification

**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  
Audible reverse alarm

**Powertrain**

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

**Service and Maintenance**

Wheel nut wrench

**Working Equipment**

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

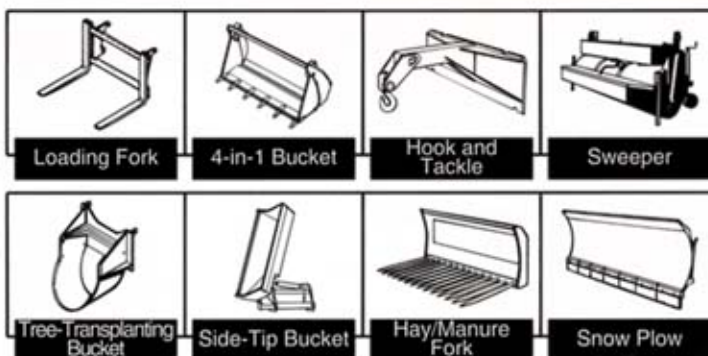
Extra hydraulics, rear  
Additional hydraulics for attachment carrier  
4th hydraulic circuit  
Hydraulic circuit with additional pump

**ATTACHMENTS**

**Buckets**

of various sizes  
0,9 - 1,5 m<sup>3</sup> (1,2 - 1,9 yd<sup>3</sup>)  
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.*

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