

Zettelmeyer ZL 602 Si Series B



A Swift Allrounder - Tested under Hard Conditions

- **High performance, environmentally-friendly 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
- **Newly developed TP-loader-linkage** ideal for loading fork applications:
 - High breakout and lifting forces combine with optimum parallelity of the attachment
- **100% differential lock can be engaged** 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** for extra performance.
Audio-visual warning system for monitoring operating systems
- **Gross Power:**
SAE J1995 44,5/60 kW/hp
- **Operating Weight:**
5,0 t (11020 lb)
- **Bucket Capacities:**
0,8 - 1,5 m³ (1,0-1,9 yd³)

Zettelmeyer

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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 in cab
2. Safety filter

| | | | | |
|------------------|--------------|-------|-------|-------------------|
| Make | KHD | | | |
| Type | BF4 L 1011FT | | | |
| Gross power @ | 2300 | r/min | (38,3 | r/s) |
| SAE J1995 | 44,5 | kW | (60 | hp) |
| Net power @ | 2300 | r/min | (38,3 | r/s) |
| SAE J1349 | 42,5 | kW | (57 | hp) |
| DIN 70020 / 6271 | 42,5 | kW | (57 | hp) |
| Max. torque @ | 1800 | r/min | (30 | r/s) |
| SAE J1349 netto | 200 | Nm | (148 | lbf/ft) |
| DIN 70020 / 6271 | 200 | Nm | (148 | 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) |



BRAKING SYSTEM

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

1. Wear-free, hydrostatic inching brake
2. Central disc brake, actuated via "inch/brake pedal".
First stage of pedal application actuates the inching facility, the last third of pedal application applies the central disc 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: 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: | TP linkage |
| | 2 Lift cylinders |
| | 1 Tilt cylinder |

| | | | |
|-----------------------|------|-------|-------------------|
| Hydraulic pump | | | |
| Flow | 52 | l/min | (13,7 US gal/min) |
| @ engine rpm | 2300 | r/min | (38,3 r/s) |
| Relief valve pressure | 22 | MPa | (3191 psi) |

| | | |
|-----------------------|-----|------|
| Lift time (loaded) | 6,0 | sec. |
| Lowering time (empty) | 3,5 | sec. |
| Dump time | 1,5 | sec. |
| Crowd time | 2,0 | 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 | 15 | MPa | (2176 psi) |



DRIVETRAIN

Transmission: hydrostatic transmission, full power shift under load, both when changing direction (forward and reverse) and between first and second range. Maximum drawbar 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.

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 | (9" | in) |
| Track | 1382 | mm | (52,4" | in) |
| Angle of oscillation | ± 10 | ° | | |

| | | |
|----------------|------|---------|
| Standard tires | Size | 12.5-20 |
| | Rim | 11 x 20 |

| | | | | |
|------------------------|------|------|-------|---------|
| Speed, max.: | | | | |
| 1st range | | | | |
| forward/reverse, up to | 10 | km/h | (6,2 | mile/h) |
| 2nd range | | | | |
| forward/reverse, up to | 30,0 | km/h | (18,6 | mile/h) |



SERVICE FILL CAPACITIES

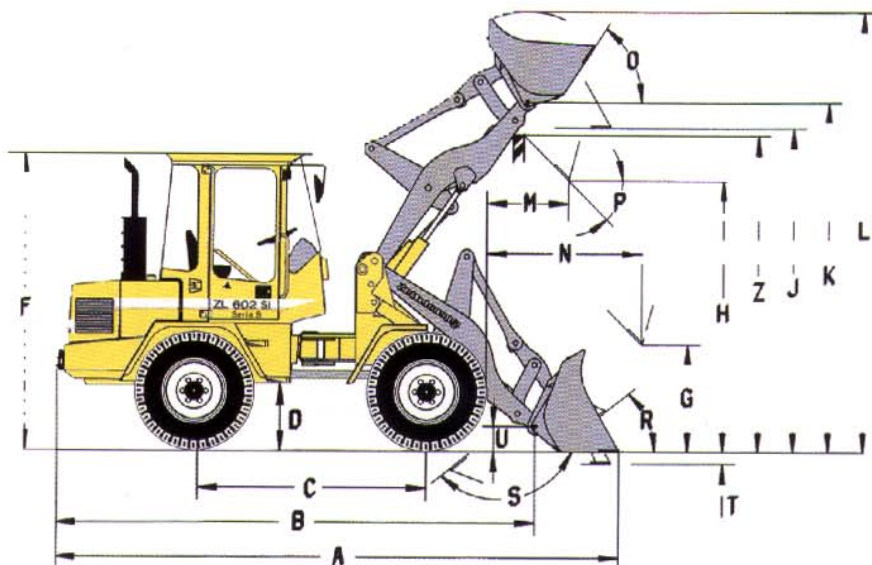
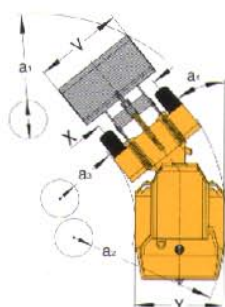
| | | | | |
|--|------|---|-------|---------|
| Engine | 10,5 | l | (2,8 | US gal) |
| Fuel tank | 60,0 | l | (15,9 | US gal) |
| Front axle, total | 10,0 | l | (2,6 | US gal) |
| Rear axle, incl. drop-box | 11,0 | l | (2,9 | US gal) |
| Hydraulic tank, incl. hydrostatic system | 60,0 | l | (15,9 | US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

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DIMENSIONS*

| | | |
|----------------|---------|----------------|
| B | 4255 mm | (14' 0" ft in) |
| C | 2030 mm | (6' 8" ft in) |
| D | 430 mm | (1' 5" ft in) |
| F | 2630 mm | (8' 8" ft in) |
| G | 950 mm | (3' 1" ft in) |
| J | 2955 mm | (9' 8" ft in) |
| K | 3190 mm | (10' 6" ft in) |
| O | 57 ° | |
| P | 45 ° | |
| R | 48 ° | |
| S | 107 ° | |
| U | 235 mm | (0' 9" ft in) |
| X | 1382 mm | (4' 6" ft in) |
| Y | 1730 mm | (5' 8" ft in) |
| Z | 2890 mm | (9' 6" ft in) |
| a ₂ | 3750 mm | (12' 1" ft in) |
| a ₃ | 1980 mm | (6' 6" ft in) |
| a ₄ | ± 39 ° | |



* measured with bucket 0,8 m³ (1,0 yd³), standard quick-change mounting and 12.5-20 tires



OPERATING DATA

| Bucket Type | | General Purpose Bucket | | Light Material Bucket | | 4-in-1 Bucket | High-Tip Bucket |
|--|--|------------------------|-------------------|-----------------------|------------------|-------------------|------------------|
| Mounting R (quick-change mounting standard equipment) | | R | | R | | R | R |
| Edge: straight (G) with / without (+ / -) teeth | | G + / - | | G - | | G + | G - |
| Capacity heaped | m ³ (yd ³) | 0,8 (1,0) | 0,9 (1,2) | 1,3 (1,7) | 1,5 (1,9) | 0,75 (0,9) | 1,5 (1,9) |
| Material density | kg/m ³ (lb/yd ³) | 1800 (3050) | 1500 (2500) | 1100 (1850) | 900 (1500) | 1700 (2850) | 800 (1350) |
| Static tipping load, straight (ISO) | kg (lb) | 3400 (7496) | 3350 (7385) | 3250 (7165) | 3150 (6944) | 3200 (7055) | 2900 (6393) |
| Static tipping load, full turn (39° ISO) | kg (lb) | 2900 (6393) | 2800 (6173) | 2700 (5952) | 2600 (5732) | 2650 (5842) | 2400 (5291) |
| Hydraulic lifting capacity, max. | kN (lbf) | 35,0 (7868) | 34,3 (7711) | 33,0 (7418) | 32,0 (7194) | 32,7 (7352) | 28,2 (6337) |
| Breakout force | kN (lbf) | 39,5 (8880) | 38,0 (8543) | 29,5 (6632) | 26,5 (5957) | 37,4 (8408) | - (-) |
| A Total length | mm (ft in) | 5070 (16' 8") | 5090 (16' 8") | 5300 (17' 5") | 5400 (17' 9") | 5120 (16' 10") | 5510 (18' 1") |
| L Lift height, max. | mm (ft in) | 4050 (13' 3") | 4080 (13' 5") | 4250 (13' 11") | 4330 (14' 2") | 4030 (13' 3") | 5040 (16' 6") |
| V Bucket width | mm (ft in) | 1750 (5' 9") | 1900 (6' 3") | 1900 (6' 3") | 1900 (6' 3") | 1750 (5' 9") | 1900 (6' 3") |
| a ₁ Clearance circle | mm (ft in) | 8180 (26' 10") | 8300 (27' 3") | 8480 (27' 10") | 8550 (28' 1") | 8200 (26' 11") | 8600 (28' 3") |
| T Digging depth | mm (ft in) | 100 (0' 4") | 100 (0' 4") | 100 (0' 4") | 100 (0' 4") | 100 (0' 4") | 100 (0' 4") |
| H Dump height | mm (ft in) | 2480 (8' 2") | 2470 (8' 1") | 2330 (7' 8") | 2260 (7' 5") | 2450 (8' 0") | 3690 (12' 1") |
| M Reach at max. height | mm (ft in) | 780 (2' 7") | 790 (2' 7,5") | 950 (3' 1") | 1020 (3' 4") | 810 (2' 8") | 1160 (3' 10") |
| N Reach, max. | mm (ft in) | 1450 (4' 9") | 1460 (4' 9,5") | 1620 (5' 4") | 1690 (5' 10") | 1480 (4' 10") | 2160 (7' 1") |
| Operating weight | kg (lb) | 5000 (11020) | 5035 (11100) | 5070 (11180) | 5100 (11240) | 5170 (11400) | 5350 (11800) |

STANDARD EQUIPMENT

Cab, Exterior

Removable ROPS-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:
Direction indicator
Parking brake
Main beam
Pre-heater
Battery charging
Differential locks
Hazard warning flashers

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
Additional 100% differential locks
Tires 12.5-20

Hydraulic System

Gear-type pump
Control valve three-spool system
Third hydraulic circuit

Service and Maintenance

Tool kit

Working Equipment

Single lever control
Automatic bucket leveller
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 according to EC-guidelines
Safety standards according to EC-directive 89/392/EEC
CE Certification

OPTIONAL EQUIPMENT

Cab

Handthrottle
Hand control inch valve
Heating independent of engine
Radio

Sliding window in the right door

Safety

FOPS plate
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

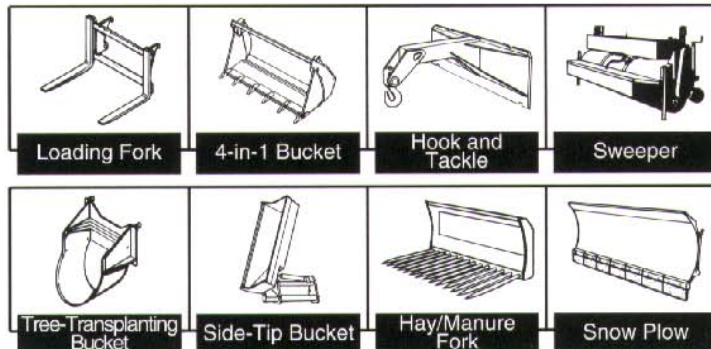
ATTACHMENTS

Buckets

of various sizes
0,8 - 1,5 m³ (1,0 - 1,9 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.

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