

Technical data (loader)

11 Technical data

11.1 AL 80

NOTE

The technical data refer to 12.5 - 18 10PR tires.

11.1.1 Loader

- Height	2670 mm
- Width (across tires)	1785 mm
- Wheelbase	2030 mm
- Track width at floor	1450 mm
- Operating weight w/o attachment	4437 kg
- Ground clearance - Vehicle center	345 mm
- Rear axle gear	mm
- Turning radius (across the rear)	3775 mm
- Articulation angle - left	40 °
- right	40 °
- Embankment angle	°
- Climbing ability with payload	60 %
- Max. lifting capacity	35 kN
- Thrust force	36 kN

11.1.2 Engine

- Type	F4L 2011
- Oil/air cooled diesel engine	
- 4 cylinders, 4-stroke, direct injection	
- Type: F 4L 2011	
- Displacement	3108 cm ³
- Power according to ECE 24/03, Appendix 10	40 kW at 2300 rpm

11.1.3 Starter

-	2.2 kW, 12 V
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11.1.4 Alternator

-	80 A, 14 V
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11.1.5 Hydrostatic drive

"20 km/h" variant

- Drive stage I	0.....7 km/h
- Drive stage II	0.....20 km/h

"30 km/h" variant

1st gear

- Drive stage I	0..... km/h
- Drive stage II	0..... km/h

2nd gear

- Drive stage I	0..... km/h
- Drive stage II	0.....30 km/h

11.1.6 Axle loads

- Perm. axle loads acc. to StVZO - front	3500 kg
- rear	4300 kg
- Perm. total weight acc. to StVZO	6500 kg

11.1.7 Tires

The following tires are permitted:

- Size	12.5 - 18
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	14.5 - 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	405/70 R 18
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	405/70 R 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	16/70 - 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar

11.1.8 Steering system

- Hydrostatically via priority valve	
- Pressure	max. bar

11.1.9 Brake system

Service brake:

1. Hydraulic wet lamella brake in the rear axle, acting on all four wheels.
2. Hydrostatic inching brake, acting on all four wheels.

Parking brake:

Spring-loaded wet lamella brake acting on the rear axle.

11.1.10 Electrical system

- Battery	88 Ah
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11.1.11 Hydraulic system

- Contents	100 l
- Hydraulic oil reservoir	l
- Flow rate	70 l/min
- Max. operating pressure	210 bar
- 1 lift cylinder	Ø 130/60 mm
- 1 tip cylinder	Ø 110/70 mm
- 1 steering cylinder	Ø 70/35 mm
- Times acc. to DIN ISO 7131	
- Lift (with payload)	6,4 s
- Lower (without load)	4,5 s
- Dump 90°	2,0 s
- Tilt 45°	2,5 s

11.1.12 Fuel supply system

- Contents	
Fuel tank	70 l

11.1.13 Heating and ventilation system

- Oil heater COBO
- Type 2/9008/COMB-10/A45
- Heating capacity
3-stage Q_{80} max. 10.5 kW at \dot{V}_{oil} 30 l/min
- Fan performance
3-stage max. 785 m³/h

11.1.14 Return suction filter

- Filter mesh $\mu\text{m abs.}$
- Bypass response pressure $p = \text{bar}$
- Pilot pressure Δbar

11.1.15 Electric contamination indicator

- Switch-on pressure $p = 2 \text{ bar}$

11.1.16 Oil cooler with temperature-controlled fan

- Performance max. kW
- Flow rate l/min

11.1.17 Noise emission

- Sound power level (LWA) » Noise outside: « 103 dB(A)
- Acoustic power level (LpA) » Noise in the driver's cabin: « 73 dB(A)

11.2 AL 100**NOTE**

The technical data refer to 14.5 -20 12PR tires.

11.2.1 Loader

- Height	2720 mm
- Width (across tires)	1785 mm
- Wheelbase	2030 mm
- Track width	1450 mm
- Operating weight w/o attachment	4890 kg
- Ground clearance - Vehicle center	345 mm
- Rear axle gear	mm
- Turning radius (across the rear)	3775 mm
- Articulation angle - left	40 °
- right	40 °
- Embankment angle	°
- Climbing ability with payload	60 %
- Max. lifting capacity	37 kN
- Thrust force	39 kN

11.2.2 Engine

- Type	F4L 2011
- Oil/air cooled diesel engine	
- 4 cylinders, 4-stroke, direct injection	
- Type: F 4L 2011	
- Displacement	3108 cm ³
- Performance acc. to ISO 9249	43.5 kW at 2300 rpm
- Exhaust gas emission acc. to RL 97/68 EC level 1 + EPA	

11.2.3 Starter

-	2.2 kW, 12 V
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11.2.4 Alternator

-	80 A, 14 V
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11.2.5 Hydrostatic drive**“20 km/h” variant**

- Drive stage I	0.....7 km/h
- Drive stage II	0.....20 km/h

“30 km/h” variant**1st gear**

- Drive stage I	0..... km/h
- Drive stage II	0..... km/h

2nd gear

- Drive stage I	0..... km/h
- Drive stage II	0.....30 km/h

11.2.6 Axle loads

- Perm. axle loads acc. to StVZO - front	3500 kg
- rear	4300 kg
- Perm. total weight acc. to StVZO	6500 kg

11.2.7 Tires

The following tires are permitted:

- Size	12.5 - 18
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	14.5 - 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	405/70 R 18
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	405/70 R 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	16/70 - 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar

11.2.8 Steering system

- Hydrostatically via priority valve	
- Pressure	max. bar

11.2.9 Brake system

Service brake:

1. Hydraulic wet lamella brake in the rear axle, acting on all four wheels.
2. Hydrostatic inching brake, acting on all four wheels.

Parking brake:

Spring-loaded wet lamella brake acting on the rear axle.

11.2.10 Electrical system

- Battery	88 Ah
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11.2.11 Hydraulic system

- Contents	100 l
- Hydraulic oil reservoir	l
- Flow rate	70 l/min
- Max. operating pressure	230 bar
- 1 lift cylinder	Ø 130/60 mm
- 1 tip cylinder	Ø 110/70 mm
- 1 steering cylinder	Ø 70/35 mm
- Times acc. to DIN ISO 7131	
- Lift (with payload)	6,2 s
- Lower (without load)	4,5 s
- Dump 90°	2,0 s
- Tilt 45°	2,5 s

11.2.12 Fuel supply system

- Contents	
Fuel tank	70 l

11.2.13 Heating and ventilation system

- Oil heater	COBO
- Type	2/9008/COMB-10/A45
- Heating capacity	
3-stage	Q_{80} max. 10.5 kW at \dot{V}_{oil} 30 l/min
- Fan performance	
3-stage	max. 785 m ³ /h

11.2.14 Return suction filter

- Filter mesh		μm abs.
- Bypass response pressure	Δ	p = bar
- Pilot pressure		bar

11.2.15 Electric contamination indicator

- Switch-on pressure	p = 2 bar
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11.2.16 Oil cooler with temperature-controlled fan

- Performance	max. kW
- Flow rate	l/min

11.2.17 Noise emission

Sound power level (LWA) » Noise outside: «	103 dB(A)
Acoustic power level (LpA) » Noise in the driver's cabin: «	73 dB(A)

11.3 AL 100 turbo

NOTE

The technical data refer to 14.5 -20 12PR tires.

11.3.1 Loader

- Height	2720 mm
- Width (across tires)	1785 mm
- Wheelbase	2030 mm
- Track width	1450 mm
- Operating weight w/o attachment	4890 kg
- Ground clearance - Vehicle center	345 mm
- Rear axle gear	mm
- Turning radius (across the rear)	3775 mm
- Articulation angle - left	40 °
- right	40 °
- Embankment angle	°
- Climbing ability with payload	60 %
- Max. lifting capacity	37 kN
- Thrust force	39 kN

11.3.2 Engine

- Type	BF4L 2011
- Oil/air cooled diesel engine	
- 4 cylinders, 4-stroke, direct injection	
- Type: BF 4L 2011	
- Displacement	3108 cm ³
- Performance acc. to ISO 9249	50 kW at 2300 rpm
- Exhaust gas emission acc. to RL 97/68 EC level 1 + EPA	

11.3.3 Starter

-	2.2 kW, 12 V
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11.3.4 Alternator

-	80 A, 14 V
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11.3.5 Hydrostatic drive

“20 km/h” variant

- Drive stage I	0..... 7 km/h
- Drive stage II	0..... 20 km/h

“30 km/h” variant

1st gear

- Drive stage I	0..... km/h
- Drive stage II	0..... km/h

2nd gear

- Drive stage I	0..... km/h
- Drive stage II	0..... 30 km/h

11.3.6 Axle loads

- Perm. axle loads acc. to StVZO - front	3500 kg
- rear	4300 kg
- Perm. total weight acc. to StVZO	6500 kg

11.3.7 Tires

The following tires are permitted:

- Size	12.5 - 18
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	14.5 - 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	405/70 R 18
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	405/70 R 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	16/70 - 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar

11.3.8 Steering system

- Hydrostatically via priority valve	
- Pressure	max. bar

11.3.9 Brake system

Service brake:

1. Hydraulic wet lamella brake in the rear axle, acting on all four wheels.
2. Hydrostatic inching brake, acting on all four wheels.

Parking brake:

Spring-loaded wet lamella brake acting on the rear axle.

11.3.10 Electrical system

- Battery	88 Ah
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11.3.11 Hydraulic system

- Contents	100 l
- Hydraulic oil reservoir	l
- Flow rate	75 l/min
- Max. operating pressure	230 bar
- 1 lift cylinder	Ø 130/60 mm
- 1 tip cylinder	Ø 110/70 mm
- 1 steering cylinder	Ø 70/35 mm
- Times acc. to DIN ISO 7131	
- Lift (with payload)	5,8 s
- Lower (without load)	3,9 s
- Dump 90°	2,0 s
- Tilt 45°	2,5 s

11.3.12 Fuel supply system

- Contents	
Fuel tank	70 l

11.3.13 Heating and ventilation system

- Oil heater	COBO
- Type	2/9008/COMB-10/A45
- Heating capacity	
3-stage	$Q_{80} \text{ max. } 10.5 \text{ kW at } \dot{V}_{\text{oil}} 30 \text{ l/min}$
- Fan performance	
3-stage	max. 785 m³/h

11.3.14 Return suction filter

- Filter mesh	μm abs.
- Bypass response pressure	Δ p = bar
- Pilot pressure	bar

11.3.15 Electric contamination indicator

- Switch-on pressure	p = bar
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11.3.16 Oil cooler with temperature-controlled fan

- Performance	max. kW
- Flow rate	l/min

11.3.17 Noise emission

Sound power level (LWA) » Noise outside: «	103 dB(A)
Acoustic power level (LpA) » noise in the driver's cabin: «	73 dB(A)

11.4 AL 120**NOTE**

The technical data refer to 16/70 - 20 14PR tires.

11.4.1 Loader

- Height	2720 mm
- Width (across tires)	2000 mm
- Wheelbase	2130 mm
- Track width	1525 mm
- Operating weight w/o attachment	5380 kg
- Ground clearance - Vehicle center	345 mm
- Rear axle gear	mm
- Turning radius across the rear (outside)	3780 mm
- Articulation angle - left	40 °
- right	40 °
- Embankment angle	°
- Climbing ability with payload	60 %
- Max. lifting capacity	40 kN
- Thrust force	39 kN

11.4.2 Engine

- Type	BF4L 2011
- Oil/air cooled diesel engine	
- 4 cylinders, 4-stroke, direct injection	
- Type: BF 4L 2011	
- Displacement	3108 cm ³
- Performance acc. to ISO 9249	53.5 kW at 2500 rpm
- Exhaust gas emission acc. to RL 97/68 EC level 1 + EPA	

11.4.3 Starter

-	2.2 kW, 12 V
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11.4.4 Alternator

-	80 A, 14 V
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11.4.5 Hydrostatic drive

- Drive stage I	0.....7 km/h
- Drive stage II	0.....20 km/h

11.4.6 Axle loads

- Perm. axle loads acc. to StVZO - front	3500 kg
- rear	4300 kg
- Perm. total weight acc. to StVZO	6500 kg

11.4.7 Tires

The following tires are permitted:

- Size	12.5 - 18
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	14.5 - 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar

- Size	405/70 R 18
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	405/70 R 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar
- Size	16/70 - 20
- Tire pressure - front	3,0 bar
- rear	2,5 - 3,0 bar

11.4.8 Steering system

- Hydrostatically via priority valve	
- Pressure	max. bar

11.4.9 Brake system

Service brake:

1. Hydraulic wet lamella brake in the rear axle, acting on all four wheels.
2. Hydrostatic inching brake, acting on all four wheels.

Parking brake:

Spring-loaded wet lamella brake acting on the rear axle.

11.4.10 Electrical system

- Battery	88 Ah
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11.4.11 Hydraulic system

- Contents	100 l
- Hydraulic oil reservoir	l
- Flow rate	80 l/min
- Max. operating pressure	230 bar
- 2 lift cylinder	Ø 90/50 mm
- 1 tip cylinder	Ø 110/70 mm
- 1 steering cylinder	Ø 80/40 mm
- Times acc. to DIN ISO 7131	
- Lift (with payload)	5.7 s
- Lower (without load)	4.9 s
- Dump 90°	1.1 s
- Tilt 45°	1.3 s

11.4.12 Fuel supply system

- Contents	
Fuel tank	70 l

11.4.13 Heating and ventilation system

- Oil heater	COBO
- Type	2/9008/COMB-10/A45
- Heating capacity	
3-stage	$Q_{80,max.}$ 10.5 kW at \dot{V}_{oil} 30 l/min
- Fan performance	
3-stage	max. 785 m³/h

11.4.14 Return suction filter

- Filter mesh		μm abs.
- Bypass response pressure	Δ	p = bar
- Pilot pressure		bar

11.4.15 Electric contamination indicator

- Switch-on pressure		p = bar
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11.4.16 Oil cooler with temperature-controlled fan

- Performance		max. kW
- Flow rate		l/min

11.4.17 Noise emission

Sound power level (LWA) » Noise outside: «	103 dB(A)
Acoustic power level (LpA) » noise in the driver's cabin: «	73 dB(A)