

# AL 100 T/TI

- Buckets : 650 à 1400 litres
- Engine power : 70 HP
- Hydrostatic transmission
- Articulation without greasing points
- New "Z" bar linkage
- Hydraulic attachment quick coupling-device
- Self-stabilizing system of articulation
- Hydraulically-assisted joystick

*Articulated chassis*



**MANILOADER**

# MANI LOADER

## ENGINE

Oil/air-cooled DEUTZ Turbo Diesel Engine,  
4 cylinders, 4-stroke, direct injection

Type	BF4L	1011F
Power at 2,500 rpm according to ISO 9249	51,5	KW (70 HP)
Max. torque at 1,650 rpm according to ISO 9249	220	Nm
Consumption carburant à régime max.	222	g/kWh
	162	g/HPh

Air filter aspiration 2 levels (safety cartridge)

Electrics:		
Voltage	12	V
Battery	88	Ah
Alternator output	860 W	60 AT
Starter	(3HP)	2,2 kW

## TRANSMISSION

Load-adjusting hydrostatic transmission with two gears giving maximum pushing force, switchable while under load - 4-wheel drive.  
Multifunction joystick and forward/reverse lever.

Axes : planetary axles  
Steering and oscillation : by articulated chassis  
Differential : limited slip differential in front and rear axles

Limited slip differential front and rear : 45% / 45%

Tyres : Standard 14.5 - 20  
Option 405/70 R20

Travel speed : Standard 0-20 km/h  
Option 30 km/h

Working speed : 0-7 km/h

Gradeability : 60 %  
Ground clearance at differential : 345 mm  
Ground clearance centre of vehicle : 484 mm

## DESIGN

**Chassis :** - articulated chassis in high-quality steel, welded, "Z" bar linkage : 100% parallel lift, specially optimised for the use of forks.  
Automatic return of the bucket to working position.

- Self-stabilizing system of articulation

- Articulation without greasing points (arm / articulation / transmission)

**Cab :** comfortable, fully suspended (mounted on 4 silent-blocks)

Noise level cab (dynam.): 79 dB (AT)  
Noise level ext. max. (dynam.): 99 dB (AT)

## STEERING

Oscillation angle 2 x 11°  
Articulation angle 2 x 40°

Turning radius at the rear - 100 T R4 = 3900 mm  
- 100 TI R4 = 3900 mm

## BRAKING SYSTEM

Service brake: multi-disc brake (oil immersed), operated hydraulically on the front axle and acting on all 4 wheels by the transmission.

"Inching" function on service brake

Parking brake: hydraulic brake acting by spring-loaded accumulator on the front axle and by the transmission on all 4 wheels.

## HYDRAULICS

Single hydraulic system :  
Lifting / lowering / crowding / dumping / attachments controls, as well as steering (via priority valve) by hydraulic 3-way distributor with pressure control on outlets.

Hydraulically-assisted steering and joystick control / proportional controls. Attachment lockable and unlockable from the cab.

Floating position on loader arm

Flow and pressure max.  
At 2500 rpm : 80 l /min & 230 bar

Cylinders : 2 lift cylinders ø 90 mm  
2 tift cylinder ø 110 mm

Cycle times according to DIN ISO 7131 :

Lifting (with load)	5,7 s
Lowering (without load)	4,0 s
Dumping 90°	1,3 s
Crowding 45°	1,1 s

## FILLING CAPACITIES

Fuel tank 70 l  
Hydraulic circuit including tank 100 l

## PERFORMANCE

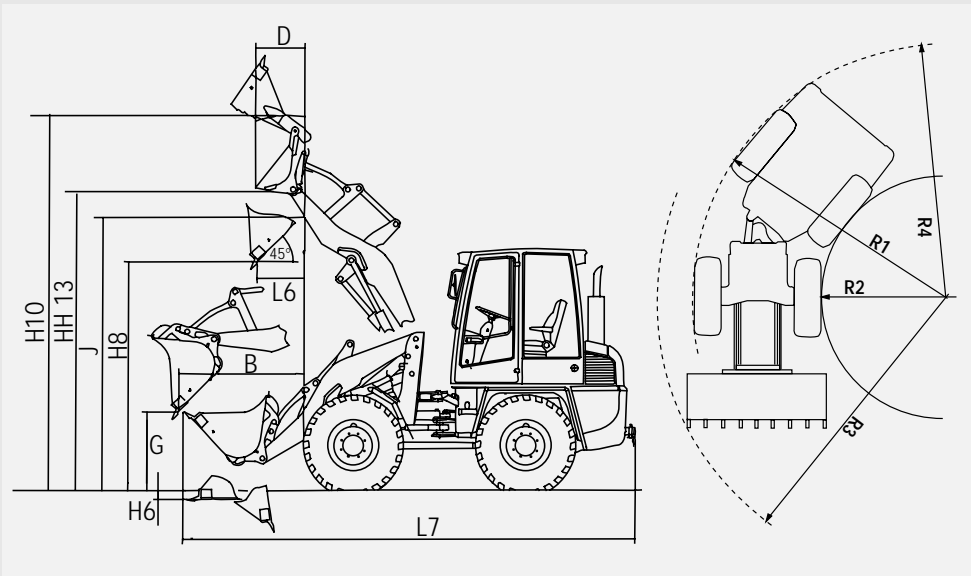
Digging depth (standard bucket) 65 mm 40 mm

Bucket angle	Crowding	49°	50°
	Dumping high	49°	46°
	Dumping max.	93°	90°

AL 100 T/TI

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## DIAGRAMS

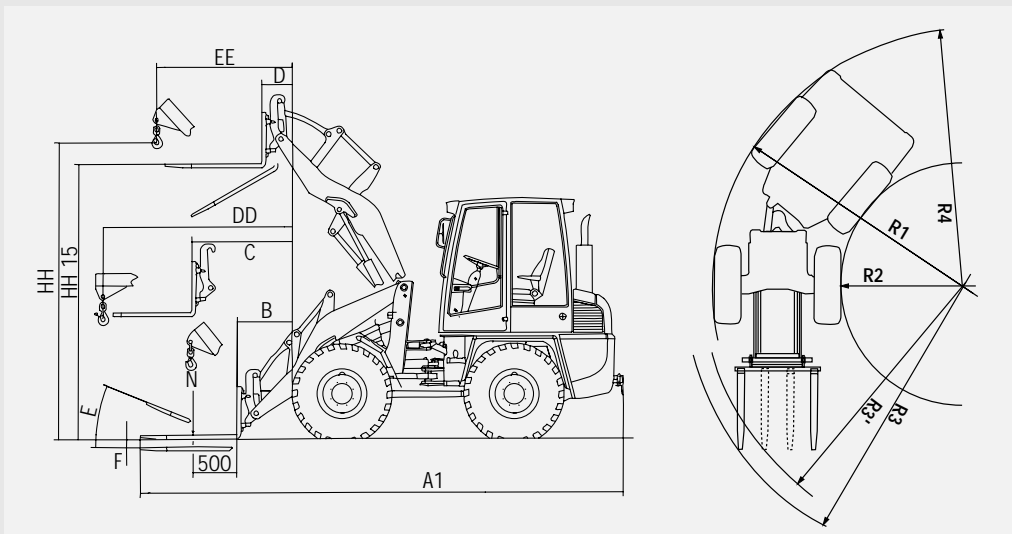


Standard	AL100T	AL100TI
Volume :	0,9 m <sup>3</sup>	0,8 m <sup>3</sup>
B	1340	1500
G	865	890
H6	65	40
H8	2575	2875
H10	4210	4400
J	3150	3380
L6	515	535
L7	5145	5425
<b>Multipurpose</b>	<b>0,75 m<sup>3</sup></b>	<b>0,65 m<sup>3</sup></b>
D (open)	530	485
HH 13 (open)	3390	3680
R1	3800	3800
R2	1900	1900
R3	4080	4060
R4	3900	3900

Dimensions of machine	Dimensions in mm	
	AL 100 T	AL 100 TI
Height	2720	2720
Width over tyres	1790	1790
Width over standard bucket	1950	1850
Wheelbase	1950	1950
Length with standard bucket	5145	5425

## TECHNICAL CHARACTERISTICS

CHARACTERISTICS WITH 14.5 - 20 TYRES		STANDARD BUCKET				MULTIPURPOSE BUCKET		LIGHT-DUTY BUCKET	
		AL 100 T		AL 100 TI		AL 100 T	AL 100 TI	AL 100 T	AL 100 TI
Volume according to DIN ISO 7546	m <sup>3</sup>	0,9	0,8	0,8	0,7	0,75	0,65	1,4	1,2
Density according to ISO 8313	t/m <sup>3</sup>	1,7	1,9	1,8	2,0	1,7	1,8	1,0	1,0
Tipping load at max. reach in line acc. to ISO 8313	kg	3550	3600	3400	3430	3320	3220	3340	3220
Tipping load at max. reach articul. acc. to ISO 8313	kg	2930	2960	2680	2710	2740	2520	2760	2520
Lifting force according to ISO 8313	daN	5100	5100	4500	4500	5100	4500	5100	4500
Tractive force	kN	41,7	41,7	41,7	41,7	41,7	41,7	41,7	41,7
Breakout force according to ISO 8313	daN	5390	5450	5200	5250	5135	5200	4095	4150
Width of the bucket	mm	1950	1850	1850	1800	2000	1850	2000	2000
Turning radius with bucket	mm	4080	4020	4060	4030	4130	4040	4170	4080
Dumping height under bucket	mm	2575	2580	2875	2880	2560	2770	2360	2665
Reach at max. height	mm	515	505	535	525	495	595	735	785
Maximum reach	mm	1340	1330	1500	1490	1320	1545	1520	1675
Permitted load - front axle	kg	3500	3500	3500	3500	3500	3500	3500	3500
Permitted load - rear axle	kg	4000	4000	4000	4000	4000	4000	4000	4000
Crowding angle	°	49	49	50	50	49	50	49	50
Dumping angle at max. height	°	49	49	46	46	46	45	49	46
Operating weight with bucket	kg	5370	5350	5270	5250	5530	5450	5470	5370



	AL100T	AL100TI
A1	5460	5700
B	595	835
C	1135	1320
D	305	265
E	15°	21°
EE	975	865
F	10	10
HH15	3200	3455
<b>Lifting jib</b>		
DD	2140	2310
EE	975	865
HH	4015	4330
<b>Reach</b>		
R1	3800	3800
R2	1900	1900
R3	4050	4150
R4	3900	3900

		AL 100 T	AL 100 TI
Payload on pallet forks according to ISO 8313 (in front position)	Level ground	2555 kg	2340 kg
	Uneven ground	1915 kg	1755 kg
Payload on pallet forks according to ISO 8313 (in articulated position)	Level ground	2140 kg	1880 kg
	Uneven ground	1605 kg	1410 kg
Payload on pallet forks according to ISO 8313 (in front position)*	Level ground	3330 kg	2880 kg
	Uneven ground	2490 kg	2160 kg
Payload on pallet forks according to ISO 8313 (in articulated position)*	Level ground	2715 kg	2280 kg
	Uneven ground	2030 kg	1710 kg

\*Forks at 150 mm from ground level

## STANDARD EQUIPMENT

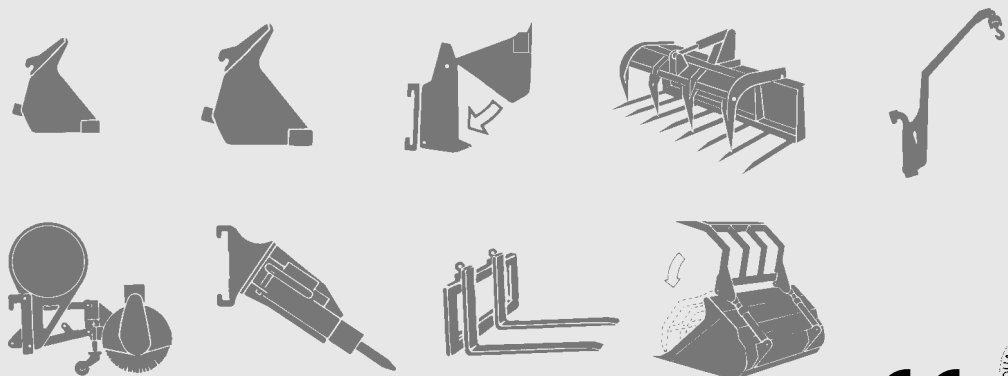
Comfortable 2-door ROPS cab - Tinted windows - Windscreen wiper / washer front and rear - Sun visor - Sun roof - Heated rear window - Cut-off switch in the cab - Joystick and lever for hydraulic attachments - Modular dashboard - Warning display lights - Safety belt - Storage rack - Interior light - 3-position heater/air conditioning (exterior air filter) - Mug holder - Radio installation facility - 1 interior rear mirror + 2 exterior - 12V electrical socket in the cab - 2 driving lights mounted at the front and 2 working lights mounted at the rear of the cab - Rotating beacon - Reversing lights, indicators and stop lights - Reverse alarm - Tool kit - Auxiliary hydraulic circuit - Bucket position indicator - Towing facility - Hydraulic attachment locking system - Electrical locking switch.

## LIST OF OPTIONS

30 km/h Version - 405/70 R20 Tyres - 375/75 R20 Tyres - Radio - 2 working lights on the arm - Loader arm suspension - Anti-theft system (transponder or digicode) - Direct return line - Permanent power to the attachments circuit for road sweeper - Safety valves on lifting and crowding cylinders.

## ATTACHMENTS

- Buckets
- Multipurpose bucket
- Grab fork
- Lifting jib
- Road sweeper
- Hydraulic hammer
- Forks
- etc..



This publication in no way constitutes an offer and the company reserves the right to alter specification without prior notice. The MANITOU models presented in this brochure can be supplied complete with optional equipment attachments



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