

# AS 70

- Buckets : 550 to 1000 litres
- Engine power : 60 HP
- Hydrostatic transmission
- Monobloc chassis / swinging arm
- 4-wheel-steering
- Automatic locking of the rear axle oscillation
- Hydraulic attachment quick-coupling device
- Hydraulically assisted joystick

*Swinging arm 180°*



**MANITOU** LOADER

# MANI LOADER

## ENGINE

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

Type	BF 4L	1011FT
Power at 2,500 rpm according to ISO 9249	44 (60 HP)	kW
Max. torque at 1,650 rpm according to ISO 9249	199	Nm
Fuel consumption at max. torque	220	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  
4-wheel steering.  
Multifunction joystick and forward/reverse lever.

Axles :	planetary axles
Steering :	4-wheel steering
Oscillation :	on rear axle
Differential :	limited slip differential in the front axle
Limited slip differential front :	45%

Tyres :	Standard	365/70 R18
	Option	405/70 R18

Travel speed :	Standard	0-20 km/h
	Option	0-35 km/h

Working speed :		0-5 km/h
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Gradeability :	60%
Ground clearance at differential :	320 mm
Ground clearance centre of vehicle :	415 mm

## DESIGN

- Chassis :**
- Rigid chassis concept (stability guaranteed) in high-quality steel, welded.
  - Automatic blocking of the rear axle oscillation from 30° of rotation of the arm.
  - Constant speed of rotation of the arm
  - Crown-wheel with internal cogs
  - "Z" bar linkage : 100% parallel lift.
  - Automatic return of the bucket to working position

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

Standard machine

Noise level cab (dynam.) :	78 dB (AT)
Sound level ext. max. (dynam.) :	97 dB (AT)

## STEERING

Oscillation angle	2 x 10°
Articulation angle	33°

Outside turning radius	R = 3660 mm
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## 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 : mechanically-controlled brake acting on the front axle.

## HYDRAULICS

Double hydraulic system:

First circuit : Lifting / lowering / crowding / dumping / attachment controls ; and steering (via priority valve) ; 4-way hydraulic distributor with pressure controls on outlets.

Hydraulically-assisted steering and joystick controls / proportional controls.

Flow and pressure max. at 2,500 rpm :	62,5 l /min & 200 bar
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2nd circuit : swinging controls; single hydraulic distributor with pressure controls on outlets.

Flow and pressure max. at 2,500 rpm :	35 l /min & 200 bar
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Floating position on loader arm

Cylinders :	2 lift cylinders	ø 80 mm
	1 tilt cylinder	ø 90 mm
	2 swinging cylinders	ø 100 mm

Cycle times according to DIN ISO 7131 :

Lifting (with load)	5,8 s
Lowering (without load)	3,5 s
Dumping 90°	2,0 s
Crowding 45°	1,5 s
Swinging 90°	3,5 s

## FILLING CAPACITIES

Fuel tank	75 l
Hydraulic circuit including tank	120 l

## PERFORMANCE

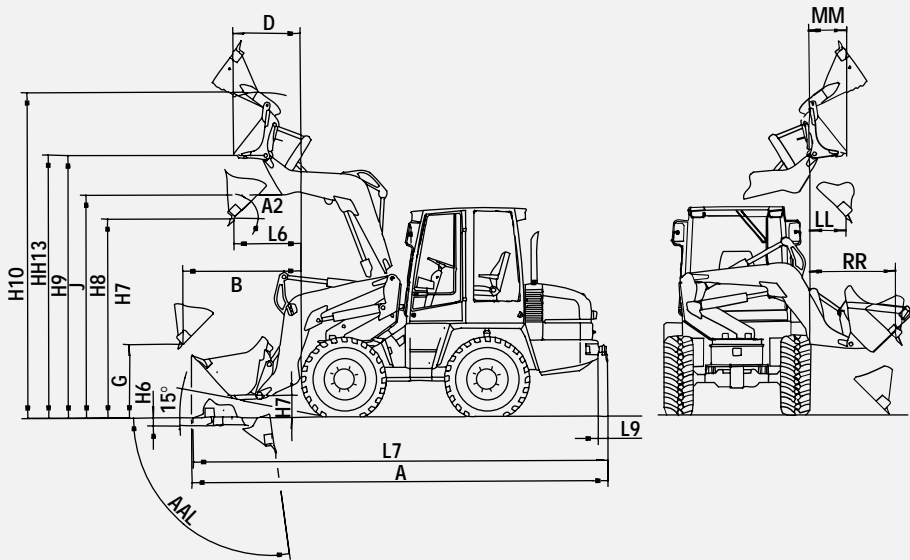
Digging depth (standard bucket)	95 mm
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Crowding angle	44°
Dumping high	45°
Dumping max. (AAL)	105°

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## DIAGRAMS

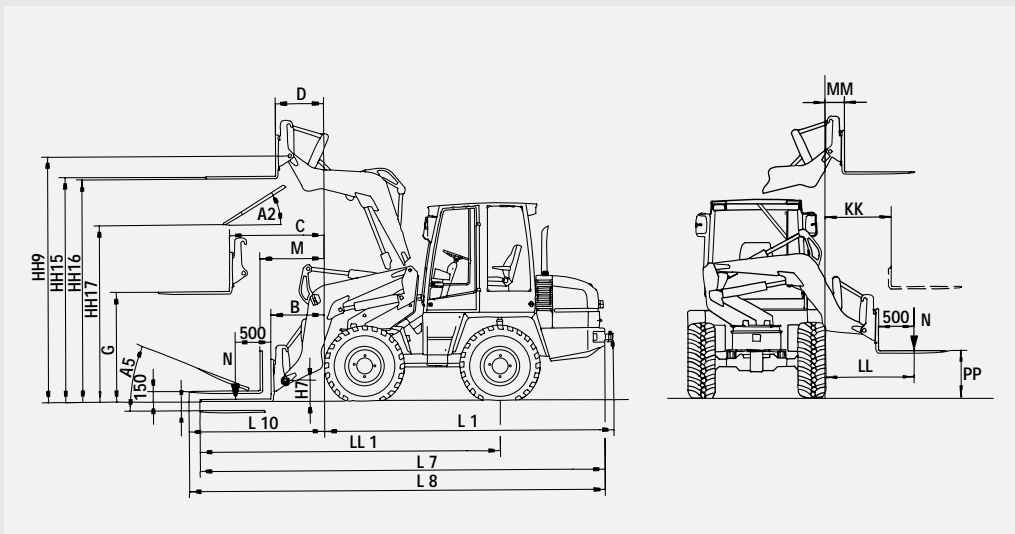


	Standard	Multipurpose
Volume :	0,7 m <sup>3</sup>	0,55 m <sup>3</sup>
A	5660	5630
B	1500	1570
G	1050	930
H6	95	120
H7	495	460
H8	2660	2550
H9	3450	3450
H10	4280	4100
J	2930	2930
L6	850	925
L7	5555	5680
L9	125	125
D (open)	-	960
HH 13 (open)	-	3400
LL	360	430
MM (open)	-	515
RR	1030	1100

Dimensions of machine	Dimensions in mm
	<b>AS 70</b>
Height	2720
Width over tyres	1940
Width over standard bucket	1950
Wheelbase	1900
Length with standard bucket	5660

## TECHNICAL CHARACTERISTICS

CHARACTERISTICS WITH 365/70 R18 TYRES		STANDARD BUCKET	MULTIPURPOSE BUCKET	LIGHT-DUTY BUCKET
Volume according to DIN ISO 7546	m <sup>3</sup>	0,7	0,6	1,0
Density according to ISO 8313	t/m <sup>3</sup>	1,8	2,0	1,15
Tipping load at max. reach in line acc. to ISO 8313	kg	2800	2560	2720
Tipping load at max. reach, swung acc. to ISO 8313	kg	2460	2200	2300
Lifting force according to ISO 8313	daN	3200	3200	3200
Tractive force	kN	40,6	40,6	40,6
Breakout force according to ISO 8313	daN	4000	4200	3600
Width of the bucket	mm	1950	1870	2000
Outside turning radius	mm	3660	3660	3660
Dumping height under bucket	mm	2660	2550	2540
Reach at max. height	mm	850	925	890
Maximum reach	mm	1500	1570	1540
Permitted load - front axle	kg	4500	4500	4500
Permitted load - rear axle	kg	4500	4500	4500
Crowding angle	°	44	44	44
Dumping angle at max. height (A2)	°	45	45	45
Operating weight with bucket	kg	5690	5840	5730



	AS 70
A2	28°
A5	20°
B	900
C	1410
D	720
G	1350
H6	250
H7	530
H9	3430
HH15	3000
HH16	2955
HH17	2400
LL1	4510
L1	4000
L7	6000
L8	6060
L10	2175
M	980
KK	950
LL	1250
MM	280
PP	380

		AS 70
Payload on pallet forks according to ISO 8313 (in front position)	Level ground	1950 kg
	Uneven ground	1465 kg
Payload on pallet forks according to ISO 8313 (in swung position)**	Level ground	1590 kg
	Uneven ground	1190 kg
Payload on pallet forks according to ISO 8313 (in front position)*	Level ground	2290 kg
	Uneven ground	1720 kg

\* forks 150mm from ground level

\*\* with handling kit

## STANDARD EQUIPMENT

Comfortable 2-door ROPS cab - Seat with hydraulic suspension and weight adjustment - Adjustable steering column - Tinted windows - Windscreen wiper / washer front and rear - Sun visor - Sun roof - Heater rear window - Cut-off switch in the cab - Joysticks and lever for hydraulic attachments - Modular dashboard - Floating position on loader arm - Loader arm suspension - 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 - Electrical socket 12V in the cab - 2 driving lights mounted at the front and 2 working lights mounted at the rear of the cab - 2 working lights on the arm - Rotating beacon - Reversing lights, indicators and stop lights - Reverse alarm - Tool kit - Auxiliary hydraulic circuit - Bucket position indicator - Hydraulic attachment locking system - Towing facility.

## LIST OF OPTIONS

35 km/h Version - 405/70 R18 Tyres - Radio - Anti-theft system (transponder or digicode) - Direct return line - Safety valves on lifting and crowding cylinders - Permanent power to the attachment circuit for road sweeper.

## ATTACHMENTS

- Bucket
- 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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