

# Technical book

MI range  
1,5 to 3,5 tons  
IC trucks



# 1500 - 1800 kg

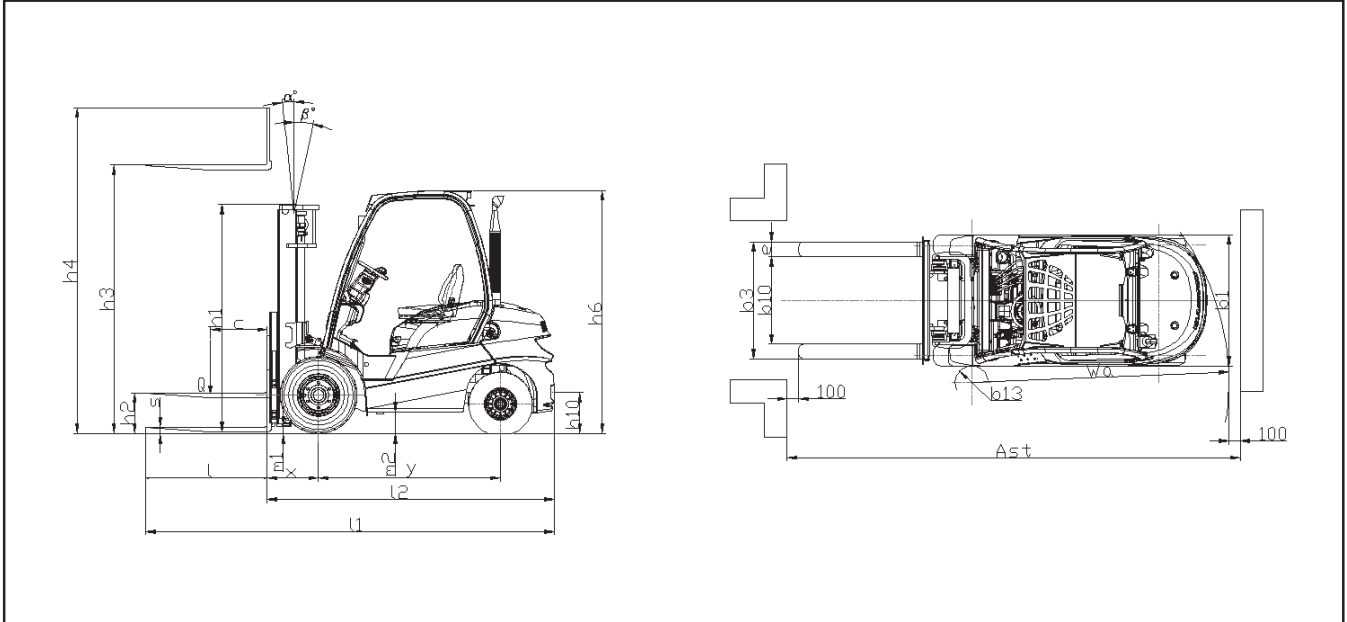
## TECHNICAL SPECS

Specifications	1.1	Manufacturer			MANITOU	MANITOU	MANITOU	MANITOU
	1.2	Model			MI15G	MI15D	MI18G	MI18D
	1.3	Power source			LPG	Diesel	LPG	Diesel
	1.4	Driving position			Seated	Seated	Seated	Seated
	1.5	Nominal capacity	Q	t	1,5	1,5	1,8	1,8
	1.6	Load - Centre of gravity	c	mm	500	500	500	500
	1.8	Distance from the load-bearing surface to centre of front axle	x	mm	405	405	405	405
	1.9	Wheelbase	y	mm	1420	1420	1420	1420
	Weights	2.1	Operating weight		kg	2710	2905	2905
2.2		Axle load, with load, front / rear		kg	3640 / 570	3820 / 585	4160 / 545	4260 / 640
2.3		Axle load, without load, front / rear		kg	1230 / 1480	1325 / 1580	1215 / 1690	1315 / 1785
Tyres, frame	3.1	Tyre equipment : cushion (V), superelastic (SE), pneumatic (L)			SE	SE	SE	SE
	3.2	Size of front wheels			6.50-10 10	6.50-10 10	6.50-10 10	6.50-10 10
	3.3	Size of rear wheels			5.00-8 8	5.00-8 8	5.00-8 8	5.00-8 8
	3.5	Number of front wheels (x=drive wheel) / rear wheels			2 x 2	2 x 2	2 x 2	2 x 2
	3.6	Front wheel gauge (middle of wheels)	b10	mm	900	900	900	900
	3.7	Rear wheel gauge (middle of wheels)	b11	mm	920	920	920	920
	Dimensions	4.1	Tilt of mast forwards/backwards (1)	$\alpha / \beta$		6 / 12	6 / 12	6 / 12
4.2		Height mast lowered	h1	mm	2145	2145	2145	2145
4.3		Free lift	h2	mm	155	155	155	155
4.4		Lift height	h3	mm	3300	3300	3300	3300
4.5		Height mast extended	h4	mm	4255	4255	4255	4255
4.7		Height of overhead guard	h6	mm	2090	2090	2090	2090
4.8		Height of seat	h7	mm	1160	1160	1160	1160
4.12		Height of towing bar	h10	mm	315	315	315	315
4.19		Overall length	l1	mm	3310	3310	3350	3350
4.20		Length at fork heels	l2	mm	2240	2240	2280	2280
4.21		Total width (overall)	b1	mm	1080	1080	1080	1080
4.22		Fork dimensions		mm	35 / 100 / 1070	35 / 100 / 1070	35 / 100 / 1070	35 / 100 / 1070
4.23		Fork carriage to DIN 15173 A/B			FEM2A	FEM2A	FEM2A	FEM2A
4.24		Width of fork carriage b3	b3	mm	1000	1000	1000	1000
4.31		Ground clearance below mast	m1	mm	115	115	115	115
4.32		Ground clearance at centre of wheel-base	m2	mm	150	150	150	150
4.33		Width of aisle for pallet 1000x1200 crossways	Ast	mm	3555	3555	3580	3580
4.34	Width of aisle for pallet 800x1200 lengthways	Ast	mm	3755	3755	3780	3780	
4.35	Turning radius	Wa	mm	1950	1950	1975	1975	
4.36	Inner turning radius	b13	mm	55	55	55	55	
Performances	5.1	Speed of travel laden / unladen		km/h	17.5 / 18	18.5 / 19	17.5 / 18	18.6 / 19.3
	5.2	Speed of raise laden / unladen		m/s	0.45 / 0.55	0.45 / 0.55	0.50 / 0.55	0.50 / 0.55
	5.3	Speed of lowering laden / unladen m/s		m/s	0.50 / 0.55	0.50 / 0.55	0.50 / 0.55	0.50 / 0.55
	5.5	Nominal towing power laden / unladen		N	14600 / 7700	14500 / 7600	14500 / 8000	14400 / 7950
	5.7	Gradeability with / without load		%	>20	>20	>20	>20
	5.10	Service brake			Hydraulic	Hydraulic	Hydraulic	Hydraulic
Engines	7.1	Engine Manufacturer / Type			NISSAN K21	YANMAR 4TNE92-HRJ	NISSAN K21	YANMAR 4TNE92-HRJ
	7.2	Power delivery		kW	31,5	32,8	31,5	32,8
	7.3	Rated speed			2300	2450	2300	2450
	7.4	Number of pistons / Cubic capacity		cm <sup>3</sup>	4/2065	4/2659	4/2065	4/2659
Miscellaneous	8.2	Operating pressure for attachments		bar	160	160	160	160
	8.3	Oil flow for attachments		l/min	53	56	53	56

1 Values with duplex mast

Data is based on standard configurations (forks, battery).  
Performance data and dimensions are nominal and subject to tolerances.  
Specifications are subject to change without notice.

## DIMENSIONAL DRAWINGS



## MAST AND RATED CAPACITIES

MI 1,5 T			Duplex Total Visibility			Duplex Free Lift			Triplex Free Lift						
			DVT33	DVT37	DVT40	DLL33	DLL37	DLL40	TLL45	TLL47	TLL48	TLL50	TLL55	TLL60	TLL65
h3*	Lift height	mm	3300	3700	4000	3300	3700	4000	4500	4700	4800	5000	5500	6000	6500
h1	Height mast lowered	mm	2145	2395	2595	2160	2360	2560	2120	2170	2220	2270	2470	2720	2870
h2	Free lift	mm	155	155	155	1575	1775	1975	1500	1585	1600	1685	1885	2100	2200
h4	Height mast extended*	mm	3865	4265	4600	3885	4285	4585	5130	5380	5430	5595	6095	6730	7180
	Residual capacity without attachment	kg	1500	1500	1500	1500	1500	1500	1300	1250	1250	1200	950	700	-
	Residual capacity with Integrated sideshift	kg	1500	1500	1500	1500	1500	1500	1300	1150	1150	1100	850	600	-
	Residual capacity with forks positionner & sideshift	kg	1400	1400	1400	1400	1400	1400	1200	1050	1050	1000	750	500	-

\* Without backrest

MI 1,8 T			Duplex Total Visibility			Duplex Free Lift			Triplex Free Lift						
			DVT33	DVT37	DVT40	DLL33	DLL37	DLL40	TLL45	TLL47	TLL48	TLL50	TLL55	TLL60	TLL65
h3*	Lift height	mm	3300	3700	4000	3300	3700	4000	4500	4700	4800	5000	5500	6000	6500
h1	Height mast lowered	mm	2145	2395	2595	2160	2360	2560	2120	2170	2220	2270	2470	2720	2870
h2	Free lift	mm	155	155	155	1575	1775	1975	1500	1585	1600	1685	1885	2100	2200
h4	Height mast extended*	mm	3865	4265	4600	3885	4285	4585	5130	5380	5430	5595	6095	6730	7180
	Residual capacity without attachment	kg	1800	1800	1700	1800	1800	1700	1700	1650	1650	1350	1050	700	-
	Residual capacity with Integrated sideshift	kg	1750	1750	1650	1750	1750	1650	1600	1550	1550	1250	950	650	-
	Residual capacity with forks positionner & sideshift	kg	1650	1650	1550	1650	1650	1550	1500	1450	1450	1150	900	600	-

\* Without backrest

# 2000 - 2500 kg

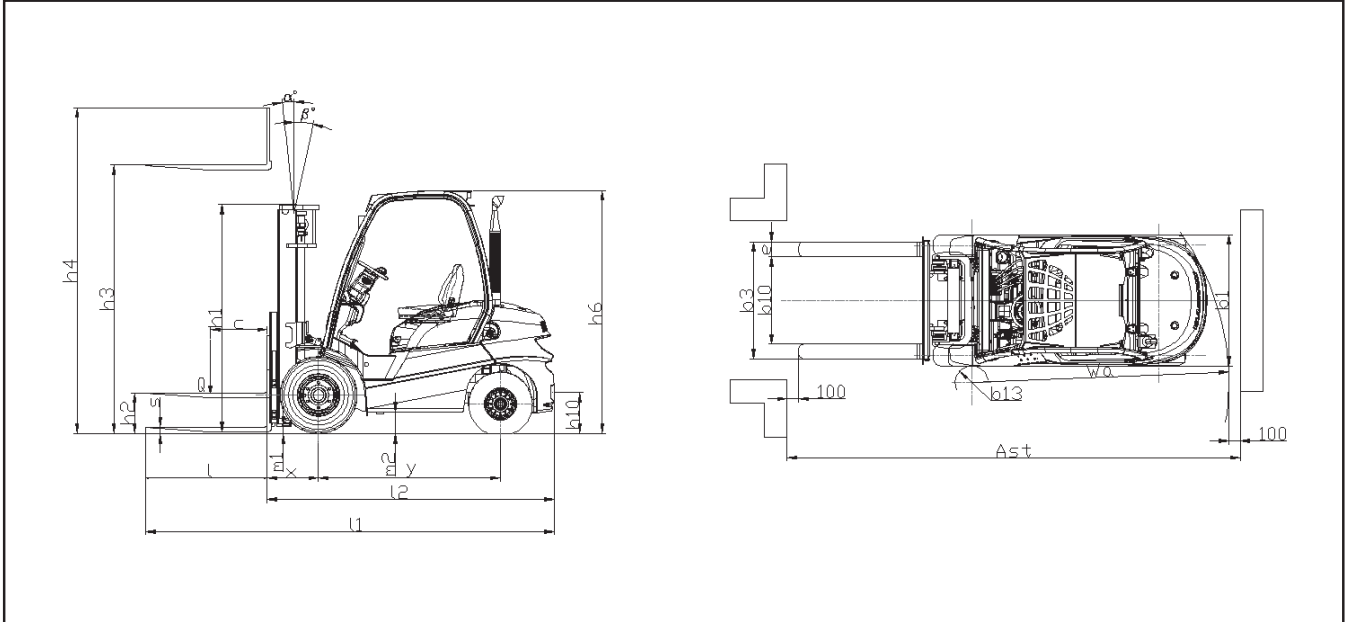
## TECHNICAL SPECS

Specifications	1.1	Manufacturer			MANITOU	MANITOU	MANITOU	MANITOU
	1.2	Model			MI20G	MI20D	MI25G	MI25D
	1.3	Power source			LPG	Diesel	LPG	Diesel
	1.4	Driving position			Seated	Seated	Seated	Seated
	1.5	Nominal capacity	Q	t	2	2	2,5	2,5
	1.6	Load - Centre of gravity	c	mm	500	500	500	500
	1.8	Distance from the load-bearing surface to centre of front axle	x	mm	465	465	465	465
	1.9	Wheelbase	y	mm	1600	1600	1600	1600
	Weights	2.1	Operating weight		kg	3620	3725	3895
2.2		Axle load, with load, front / rear		kg	4930 / 690	5005 / 720	5665 / 730	5735 / 765
2.3		Axle load, without load, front / rear		kg	1720 / 1900	1765 / 1960	1665 / 2230	1710 / 2290
Tyres, frame	3.1	Tyre equipment : cushion (V), superelastic (SE), pneumatic (L)			SE	SE	SE	SE
	3.2	Size of front wheels			7.00-12 12	7.00-12 12	7.00-12 12	7.00-12 12
	3.3	Size of rear wheels			6.00-9 10	6.00-9 10	6.00-9 10	6.00-9 10
	3.5	Number of front wheels (x=drive wheel) / rear wheels			2 x 2	2 x 2	2 x 2	2 x 2
	3.6	Front wheel gauge (middle of wheels)	b10	mm	965	965	965	965
	3.7	Rear wheel gauge (middle of wheels)	b11	mm	973	973	973	973
	Dimensions	4.1	Tilt of mast forwards/backwards (1)	$\alpha / \beta$		6 / 12	6 / 12	6 / 12
4.2		Height mast lowered	h1	mm	2185	2185	2185	2185
4.3		Free lift	h2	mm	140	140	140	140
4.4		Lift height	h3	mm	3300	3300	3300	3300
4.5		Height mast extended	h4	mm	4345	4345	4345	4345
4.7		Height of overhead guard	h6	mm	2115	2115	2115	2115
4.8		Height of seat	h7	mm	1190	1190	1190	1190
4.12		Height of towing bar	h10	mm	355	355	360	360
4.19		Overall length	l1	mm	3615	3615	3685	3685
4.20		Length at fork heels	l2	mm	2465	2465	2535	2535
4.21		Total width (overall)	b1	mm	1155	1155	1155	1155
4.22		Fork dimensions		mm	40 / 122 / 1150	40 / 122 / 1150	40 / 122 / 1150	40 / 122 / 1150
4.23		Fork carriage to DIN 15173 A/B			FEM2A	FEM2A	FEM2A	FEM2A
4.24		Width of fork carriage b3	b3	mm	1038	1038	1038	1038
4.31		Ground clearance below mast	m1	mm	115	115	115	115
4.32		Ground clearance at centre of wheel-base	m2	mm	175	175	175	175
4.33		Width of aisle for pallet 1000x1200 crossways	Ast	mm	3865	3865	3930	3930
4.34		Width of aisle for pallet 800x1200 lengthways	Ast	mm	4065	4065	4130	4130
4.35	Turning radius	Wa	mm	2200	2200	2265	2265	
4.36	Inner turning radius	b13	mm	145	145	145	145	
Performances	5.1	Speed of travel laden / unladen		km/h	18.8 / 19.4	18 / 18.5	19.4 / 19.7	18 / 18.6
	5.2	Speed of raise laden / unladen		m/s	0.56 / 0.55	0.56 / 0.58	0.56 / 0.55	0.56 / 0.58
	5.3	Speed of lowering laden / unladen m/s		m/s	0.48 / 0.50	0.48 / 0.55	0.50 / 0.50	0.50 / 0.55
	5.5	Nominal towing power laden / unladen		N	16800 / 10400	19000 / 10200	17000 / 10400	19400 / 10250
	5.7	Gradeability with / without load		%	>20	>20	>20	>20
	5.10	Service brake			Hydraulic	Hydraulic	Hydraulic	Hydraulic
Engines	7.1	Engine Manufacturer / Type			NISSAN K25	YANMAR 4TNV94L-BXPHZ	NISSAN K25	YANMAR 4TNV94L-BXPHZ
	7.2	Power delivery		kW	38	35.5	38	35.5
	7.3	Rated speed			2400	2300	2400	2300
	7.4	Number of pistons / Cubic capacity		cm <sup>3</sup>	4/2488	4/3054	4/2488	4/3054
Miscellaneous	8.2	Operating pressure for attachments		bar	160	160	160	160
	8.3	Oil flow for attachments		l/min	72	69	72	69

1 Values with duplex mast

Data is based on standard configurations (forks, battery).  
Performance data and dimensions are nominal and subject to tolerances.  
Specifications are subject to change without notice.

## DIMENSIONAL DRAWINGS



## MAST AND RATED CAPACITIES

MI 2,0 T			Duplex Total Visibility			Duplex Free Lift			Triplex Free Lift						
			DVT33	DVT37	DVT40	DLL33	DLL37	DLL40	TLL45	TLL47	TLL48	TLL50	TLL55	TLL60	TLL65
h3*	Lift height	mm	3300	3700	4000	3300	3700	4000	4500	4700	4800	5000	5500	6000	6500
h1	Height mast lowered	mm	2185	2435	2635	2160	2360	2560	2150	2200	2250	2300	2500	2750	2900
h2	Free lift	mm	140	140	140	1480	1680	1880	1470	152	1570	1620	1820	2070	2200
h4	Height mast extended*	mm	3960	4360	4660	3980	4330	4680	5230	5380	5480	5680	6180	6730	7200
	Residual capacity without attachment	kg	2000	2000	2000	2000	2000	2000	1800	1750	1750	1700	1300	900	-
	Residual capacity with Integrated sideshift	kg	2000	2000	2000	2000	2000	2000	1700	1650	1650	1600	1200	800	-
	Residual capacity with forks positionner & sideshift	kg	1900	1900	1900	1900	1900	1900	1700	1650	1650	1600	1200	800	-

\* Without backrest

MI 2,5 T			Duplex Total Visibility			Duplex Free Lift			Triplex Free Lift						
			DVT33	DVT37	DVT40	DLL33	DLL37	DLL40	TLL45	TLL47	TLL48	TLL50	TLL55	TLL60	TLL65
h3*	Lift height	mm	3300	3700	4000	3300	3700	4000	4500	4700	4800	5000	5500	6000	6500
h1	Height mast lowered	mm	2185	2435	2635	2160	2360	2560	2150	2200	2250	2300	2500	2750	2900
h2	Free lift	mm	140	140	140	1480	1680	1880	1470	152	1570	1620	1820	2070	2200
h4	Height mast extended*	mm	3960	4360	4660	3980	4330	4680	5230	5380	5480	5680	6180	6730	7200
	Residual capacity without attachment	kg	2500	2500	2500	2500	2500	2500	2350	2200	2200	1950	1650	1050	-
	Residual capacity with Integrated sideshift	kg	2500	2500	2500	2500	2500	2500	2300	2150	2150	1900	1600	1000	-
	Residual capacity with forks positionner & sideshift	kg	2500	2500	2450	2500	2500	2450	2250	2100	2100	1850	1550	950	-

\* Without backrest

# 3000 - 3500 kg

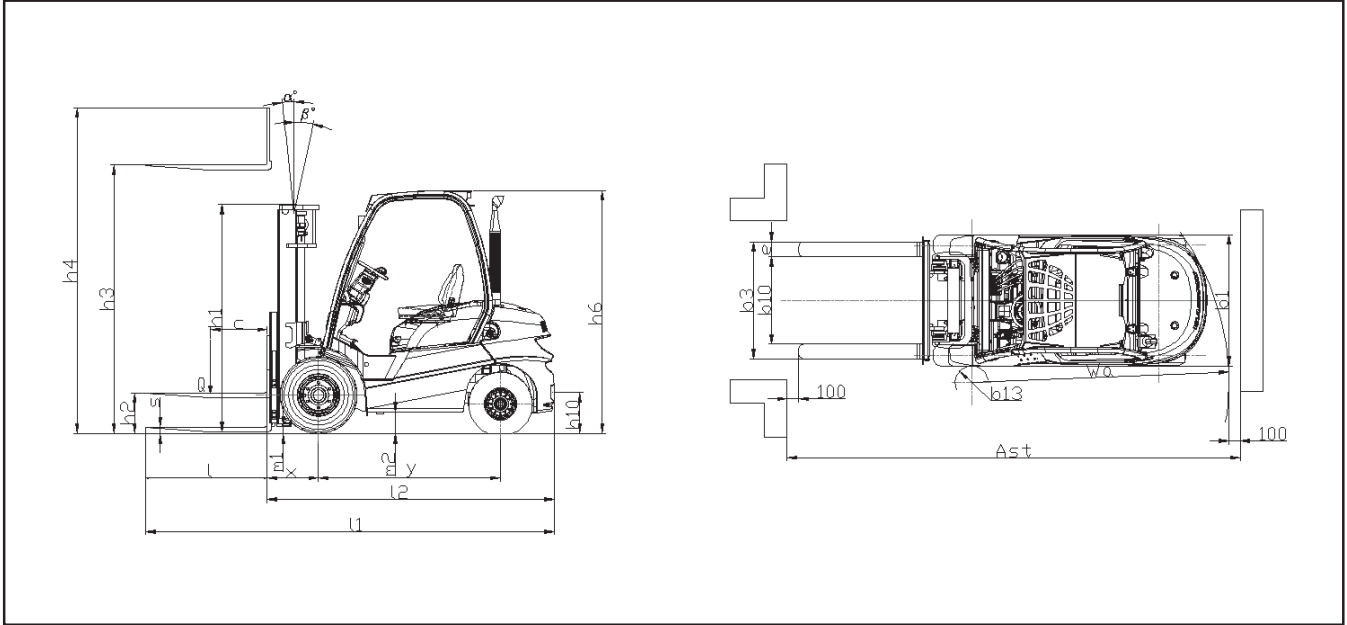
## TECHNICAL SPECS

Specifications	1.1	Manufacturer			MANITOU	MANITOU	MANITOU	MANITOU
	1.2	Model			MI30G	MI30D	MI35G	MI35D
	1.3	Power source			LPG	Diesel	LPG	Diesel
	1.4	Driving position			Seated	Seated	Seated	Seated
	1.5	Nominal capacity	Q	t	3	3	3,5	3,5
	1.6	Load - Centre of gravity	c	mm	500	500	500	500
	1.8	Distance from the load-bearing surface to centre of front axle	x	mm	480	480	485	485
	1.9	Wheelbase	y	mm	1700	1700	1700	1700
	Weights	2.1	Operating weight		kg	4490	4610	4740
2.2		Axle load, with load, front / rear		kg	6560 / 930	6650 / 960	7260 / 980	7360 / 1000
2.3		Axle load, without load, front / rear		kg	1805 / 2685	1860 / 2750	1775 / 2965	1825 / 3035
Tyres, frame	3.1	Tyre equipment : cushion (V), superelastic (SE), pneumatic (L)			SE	SE	SE	SE
	3.2	Size of front wheels			28-9-15 12	28-9-15 12	28-9-15 12	28-9-15 12
	3.3	Size of rear wheels			6.50-10 10	6.50-10 10	6.50-10 10	6.50-10 10
	3.5	Number of front wheels (x=drive wheel) / rear wheels			2 x 2	2 x 2	2 x 2	2 x 2
	3.6	Front wheel gauge (middle of wheels)	b10	mm	1005	1005	1005	1005
	3.7	Rear wheel gauge (middle of wheels)	b11	mm	975	975	975	975
	Dimensions	4.1	Tilt of mast forwards/backwards (1)	$\alpha / \beta$		6 / 12	6 / 12	6 / 12
4.2		Height mast lowered	h1	mm	2200	2200	2315	2315
4.3		Free lift	h2	mm	145	145	145	145
4.4		Lift height	h3	mm	3300	3300	3300	3300
4.5		Height mast extended	h4	mm	4445	4445	4445	4445
4.7		Height of overhead guard	h6	mm	2130	2130	2130	2130
4.8		Height of seat	h7	mm	1215	1215	1215	1215
4.12		Height of towing bar	h10	mm	355	355	360	360
4.19		Overall length	l1	mm	3865	3865	3935	3935
4.20		Length at fork heels	l2	mm	2715	2715	2785	2785
4.21		Total width (overall)	b1	mm	1225	1225	1225	1225
4.22		Fork dimensions		mm	45 / 122 / 1115	45 / 122 / 1115	45 / 122 / 1115	45 / 122 / 1115
4.23		Fork carriage to DIN 15173 A/B			FEM2A	FEM2A	FEM2A	FEM2A
4.24		Width of fork carriage b3	b3	mm	1100	1100	1100	1100
4.31		Ground clearance below mast	m1	mm	130	130	130	130
4.32		Ground clearance at centre of wheel-base	m2	mm	200	200	200	200
4.33		Width of aisle for pallet 1000x1200 crossways	Ast	mm	4140	4140	4195	4195
4.34		Width of aisle for pallet 800x1200 lengthways	Ast	mm	4340	4340	4395	4395
4.35	Turning radius	Wa	mm	2460	2460	2510	2510	
4.36	Inner turning radius	b13	mm	160	160	160	160	
Performances	5.1	Speed of travel laden / unladen		km/h	18 / 18.5	18 / 18.5	17 / 17.5	18 / 18.5
	5.2	Speed of raise laden / unladen		m/s	0.45 / 0.55	0.45 / 0.52	0.395 / 0.52	0.39 / 0.40
	5.3	Speed of lowering laden / unladen m/s		m/s	0.48 / 0.50	0.43 / 0.48	0.47 / 0.38	0.40 / 0.350
	5.5	Nominal towing power laden / unladen		N	17400 / 10800	20000 / 10600	17500 / 11000	20500 / 10800
	5.7	Gradeability with / without load		%	>20	>20	>18 / >20	>18 / >20
	5.10	Service brake			Hydraulic	Hydraulic	Hydraulic	Hydraulic
Engines	7.1	Engine Manufacturer / Type			NISSAN K25	YANMAR 4TNV94L-BXPHZ	NISSAN K25	YANMAR 4TNV94L-BXPHZ
	7.2	Power delivery		kW	38	35.5	38	35.5
	7.3	Rated speed			2400	2300	2400	2300
	7.4	Number of pistons / Cubic capacity		cm <sup>3</sup>	4/2488	4/3054	4/2488	4/3054
Miscellaneous	8.2	Operating pressure for attachments		bar	160	160	160	160
	8.3	Oil flow for attachments		l/min	72	69	72	69

1 Values with duplex mast

Data is based on standard configurations (forks, battery).  
Performance data and dimensions are nominal and subject to tolerances.  
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## DIMENSIONAL DRAWINGS



## MAST AND RATED CAPACITIES

MI 3,0 T			Duplex Total Visibility			Duplex Free Lift			Triplex Free Lift						
			DVT33	DVT37	DVT40	DLL33	DLL37	DLL40	TLL45	TLL47	TLL48	TLL50	TLL55	TLL60	TLL65
h3*	Lift height	mm	3300	3700	4000	3300	3700	4000	4500	4700	4800	5000	5500	6000	6500
h1	Height mast lowered	mm	2200	2450	2650	2230	2430	2580	2165	2215	2265	2315	2515	2765	2915
h2	Free lift	mm	145	145	145	1475	1675	1825	1410	1460	1510	1560	1760	2010	2160
h4	Height mast extended*	mm	4035	4435	4735	4055	4455	4755	5305	5455	5555	5755	6255	6805	7255
	Residual capacity without attachment	kg	3000	3000	3000	3000	3000	3000	2900	2800	2800	2500	1850	1400	-
	Residual capacity with Integrated sideshift	kg	3000	3000	3000	3000	3000	3000	2800	2700	2700	2400	1750	1300	-
	Residual capacity with forks positionner & sideshift	kg	2900	2900	2900	2900	2900	2900	2700	2600	2600	2300	1650	1200	-

\* Without backrest

MI 3,5 T			Duplex Total Visibility			Duplex Free Lift			Triplex Free Lift						
			DVT33	DVT37	DVT40	DLL33	DLL37	DLL40	TLL45	TLL47	TLL48	TLL50	TLL55	TLL60	TLL65
h3*	Lift height	mm	3300	3700	4000	3300	3700	4000	4500	4700	4800	5000	5500	6000	6500
h1	Height mast lowered	mm	2315	2565	2715	2330	2530	2680	2265	2315	2365	2415	2565	2815	2965
h2	Free lift	mm	145	145	145	1500	1700	1850	1435	1485	1535	1585	1735	1985	2135
h4	Height mast extended*	mm	4115	4515	4815	4130	4530	4830	5380	5530	5630	5830	6330	6880	7330
	Residual capacity without attachment	kg	3500	3500	3500	3500	3500	3500	3400	3300	3300	300	2200	1400	-
	Residual capacity with Integrated sideshift	kg	3500	3500	3500	3500	3500	3500	3300	3200	3200	2900	2100	1500	-
	Residual capacity with forks positionner & sideshift	kg	3400	3400	3400	3400	3400	3400	3200	3100	3100	2800	2000	1400	-

\* Without backrest

Your nearest MANITOU dealer:



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