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TECHNICAL DATA SHEET

# **MSI** Range

**Semi-industrial IC forklifts**

**Europe**

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# 2500 - 3500 kg / stage 3A

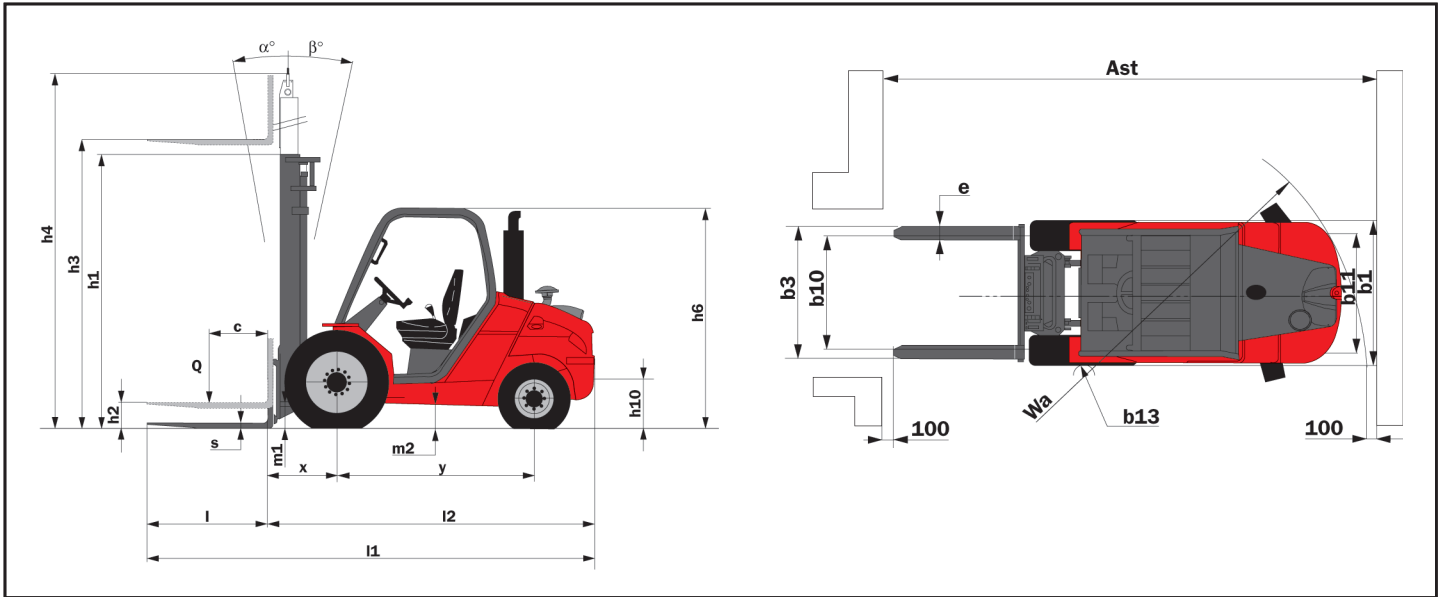
## TECHNICAL SPECS

				MANITOU	MANITOU	MANITOU
Specifications	1.1	Manufacturer			MANITOU	MANITOU
	1.2	Model			MSI 25T	MSI 30T
	1.3	Power source			Diesel	Diesel
	1.4	Driving position			Seated	Seated
	1.5	Nominal capacity	Q	t	2,5	3,0
	1.6	Load - centre of gravity	c	mm	500	500
	1.8	Distance from the load-bearing surface to centre of front axle	x	mm	625	630
	1.9	Wheelbase	y	mm	1800	1800
Weight	2.1	Operating weight		kg	4070	4705
	2.2	Axle load, with load, front / rear		kg	5695 / 875	6780 / 925
	2.3	Axle load, without load, front / rear		kg	1630 / 2440	1900 / 2805
Tyres, frame	3.1	Tyre equipment: cushion (V), superelastic (SE), pneumatic (L)			L	L
	3.2	Size of front wheels			275/70 R22.5	275/70 R22,5
	3.3	Size of rear wheels			7.00X12 14PR	7.00X12 14PR
	3.5	Number of front wheels (x = drive wheel) / rear wheels			2x / 2	2x / 2
	3.6	Front wheel gauge (middle of wheels)	b10	mm	1046	1046
	3.7	Rear wheel gauge (middle of wheels)	b11	mm	1102	1102
	Dimensions	4.1	Tilt of mast forwards / backwards (1)	$\alpha / \beta$	deg	10 / 12
4.2		Height mast lowered	h1	mm	2300	2300
4.3		Free lift	h2	mm	130	135
4.4		Lift height	h3	mm	3300	3300
4.5		Height mast extended	h4	mm	4131	4193
4.7		Height of overhead guard (cabin)	h6	mm	2105	2105
4.8		Height of seat	h7	mm	1025	1025
4.12		Height of towing bar	h10	mm	310	310
4.19		Overall length	l1	mm	4045	4080
4.20		Length at fork heels	l2	mm	2945	2980
4.21		Total width (overall)	b1	mm	1323	1323
4.22		Fork dimensions	s / e / l	mm	40 / 100 / 1100	45 / 100 / 1100
4.23		Fork carriage to DIN 15173 A/B			FEM2A	FEM3A
4.24		Width of fork carriage	b3	mm	1260	1260
4.31		Ground clearance below mast	m1	mm	270	270
4.32		Ground clearance at centre of wheel-base	m2	mm	260	260
4.33		Width of aisle for pallet 1000 x 1200 crossways	Ast	mm	4525	4560
4.34		Width of aisle for pallet 800 x 1200 lengthways	Ast	mm	4625	4660
4.35		Turning radius	Wa	mm	2545	2580
4.36		Inner turning radius	b13	mm	150	150
Performances	5.1	Speed of travel laden / unladen		km/h	20 / 20	20 / 20
	5.2	Speed of raise laden / unladen		m/s	0.4 / 0.5	0,4 / 0,5
	5.3	Speed of lowering laden / unladen		m/s	0.5 / 0.4	0,5 / 0,4
	5.5	Nominal towing power laden / unladen		daN	1860 / 1240	1922 / 890
	5.7	Gradeability with / without load		%	31 / 32	24 / 29
	5.10	Service brake			Hydraulic	Hydraulic
Motors	7.1	Manufacturer / Type of engine			Kubota V2403 M-E3B	Kubota V2403 M-E3B
	7.2	Power delivery		kW	36	36
	7.3	Régime nominal		tr/min	2700	2700
	7.4	Number of pistons / Cubic capacity		cm <sup>3</sup>	4/2434	4/2434
Miscellan.	8.1	Power control			Hydraulic	Hydraulic
	8.2	Operating pressure for attachments		bar	170	185
	8.3	Oil flow for attachments		l/min	77	77
	8.4	Average noise level for the driver (in motion) measured / guaranteed		db (A)		

1- Values with duplex mast

Data is based on standard configurations (forks, mast).  
 Performance data and dimensions are nominal and subject to tolerances.  
 Manitou products and their specifications are subject to change without notice.

# DIMENSIONAL DRAWINGS



# MASTS AND RESIDUAL CAPACITIES

MSI 2,5 T			Total Visibility Duplex									
			DVT27	DVT30	DVT33	DVT35	DVT37	DVT40	DVT45	DVT50	DVT55	DVT60
h3	Lift height	mm	2700	3000	3300	3500	3700	4000	4500	5000	5500	6000
h1	Height mast lowered	mm	2000	2150	2300	2400	2560	2750	3000	3250	3500	3790
h2	Free lift	mm	130	130	130	130	130	130	130	130	130	130
h4	Height mast extended*	mm	3531	3831	4131	4331	4531	4831	5331	5831	6331	6831
	Residual capacity at max height MSI25 - c=500	kg	2500	2500	2500	2500	2500	2500	2200	1900	-	-
	Tilt of mast forwards / backwards	deg	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	6 / 6	6 / 6	6 / 6

MSI 2,5 T			Free Lift Triplex								
			TLL37	TLL40	TLL43	TLL47	TLL50	TLL55	TLL60	TLL65	TLL70
h3	Lift height	mm	3700	4000	4300	4700	5000	5500	6000	6600	7000
h1	Height mast lowered	mm	1950	2050	2150	2300	2400	2560	2750	3000	3250
h2	Free lift	mm	1221	1321	1421	1571	1671	1831	2021	2271	2521
h4	Height mast extended*	mm	4469	4769	5069	5469	5769	6269	6769	7269	7769
	Residual capacity at max height MSI25 - c=500	kg	2500	2500	2400	2100	1900	1500	1500	-	-
	Tilt of mast forwards / backwards	deg	10 / 12	10 / 12	10 / 12	10 / 12	6 / 6	6 / 6	6 / 6	6 / 6	6 / 6

MSI 3,0 & 3,5 T			Total Visibility Duplex								
			DVT30	DVT33	DVT35	DVT37	DVT40	DVT45	DVT50	DVT55	DVT60
h3	Lift height	mm	3000	3300	3500	3700	4000	4500	5000	5500	6000
h1	Height mast lowered	mm	2150	2300	2400	2560	2750	3000	3250	3500	3790
h2	Free lift	mm	135	135	135	135	135	135	135	135	135
h4	Height mast extended*	mm	3893	4193	4393	4593	4893	5396	5863	6393	6893
	Residual capacity at max height MSI30 - c=500	kg	3000	3000	3000	3000	3000	2600	2400	1900	1500
	Residual capacity at max height MSI35 - c=500	kg	3500	3500	3500	3500	3400	2900	2700	-	-
	Tilt of mast forwards / backwards	deg	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	6 / 6	6 / 6	6 / 6

MSI 3,0 & 3,5 T			Free Lift Triplex								
			TLL37	TLL40	TLL43	TLL47	TLL50	TLL55	TLL60	TLL65	TLL70
h3	Lift height	mm	3700	4000	4300	4700	5000	5500	6000	6600	7000
h1	Height mast lowered	mm	2050	2150	2300	2400	2560	2750	3000	3250	3500
h2	Free lift	mm	1297	1397	1547	1647	1807	1997	2247	2497	2747
h4	Height mast extended*	mm	4500	4800	5100	5500	5800	6300	6800	7300	7800
	Residual capacity at max height MSI30 - c=500	kg	3000	3000	2800	2600	2400	1900	1500	-	-
	Residual capacity at max height MSI35 - c=500	kg	3400	3400	3000	2600	2700	2200	1800	1200	
	Tilt of mast forwards / backwards	deg	10 / 12	10 / 12	10 / 12	10 / 12	6 / 6	6 / 6	6 / 6	6 / 6	6 / 6

\* Without backrest

# 2000 - 3500 kg / stage 3B

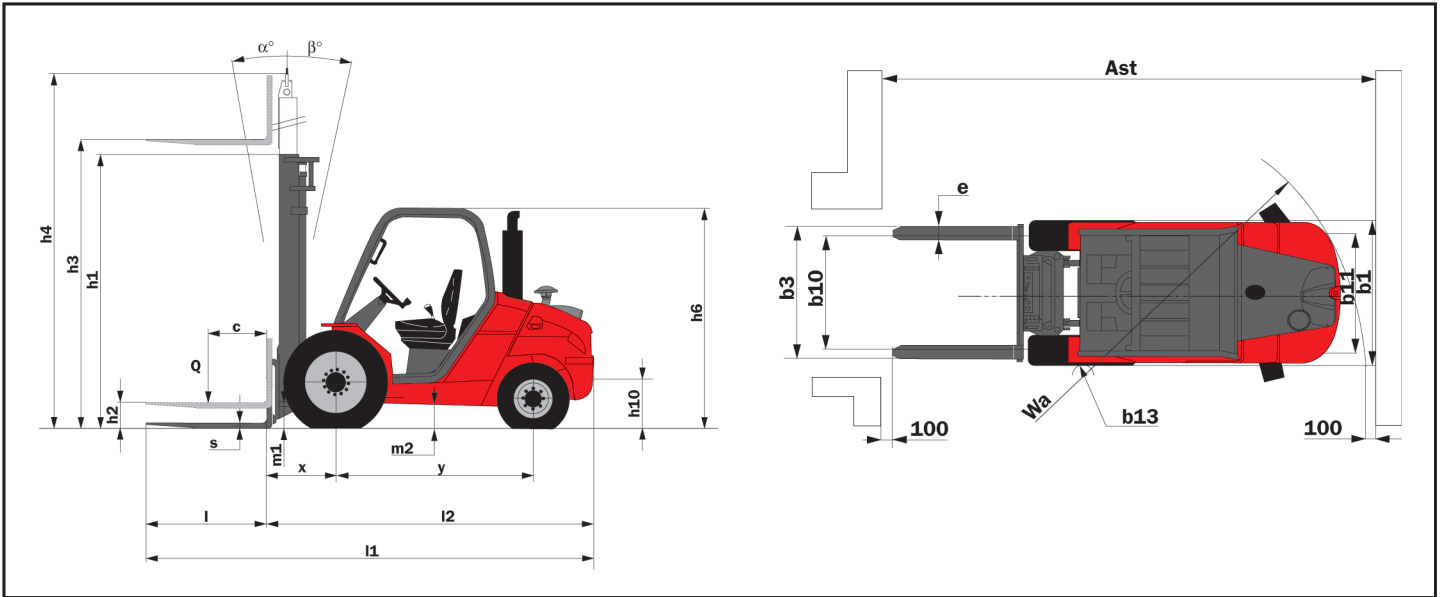
## TECHNICAL SPECS

			MANITOU	MANITOU	MANITOU	MANITOU		
			MSI 20T	MSI 25T	MSI 30T	MSI 35T		
<b>Specifications</b>	1.1	Manufacturer						
	1.2	Model						
	1.3	Power source						
	1.4	Driving position						
	1.5	Nominal capacity	Q	t	2	2,5	3,0	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	625	625	630	630
	1.9	Wheelbase	y	mm	1800	1800	1800	1800
	<b>Weight</b>	2.1	Operating weight		kg	3770	4070	4705
2.2		Axle load, with load, front / rear		kg	4911 / 859	5695 / 875	6780 / 925	7430 / 915
2.3		Axle load, without load, front / rear		kg	1661 / 2109	1630 / 2440	1900 / 2805	1730 / 3115
<b>Tyres, frame</b>	3.1	Tyre equipment: cushion (V), superelastic (SE), pneumatic (L)			L	L	L	L
	3.2	Size of front wheels			275/70 R22.5	275/70 R22.5	275/70 R22,5	275/70 R22,5
	3.3	Size of rear wheels			7.00X12 14PR	7.00X12 14PR	7.00X12 14PR	7.00X12 14PR
	3.5	Number of front wheels (x = drive wheel) / rear wheels			2x / 2	2x / 2	2x / 2	2x / 2
	3.6	Front wheel gauge (middle of wheels)	b10	mm	1046	1046	1046	1046
	3.7	Rear wheel gauge (middle of wheels)	b11	mm	1102	1102	1102	1102
	<b>Dimensions</b>	4.1	Tilt of mast forwards / backwards (1)	$\alpha / \beta$	deg	10 / 12	10 / 12	10/12
4.2		Height mast lowered	h1	mm	2300	2300	2300	2300
4.3		Free lift	h2	mm	130	130	135	135
4.4		Lift height	h3	mm	3300	3300	3300	3300
4.5		Height mast extended	h4	mm	4131	4131	4193	4193
4.7		Height of overhead guard (cabin)	h6	mm	2105	2105	2105	2105
4.8		Height of seat	h7	mm	1025	1025	1025	1025
4.12		Height of towing bar	h10	mm	310	310	310	310
4.19		Overall length	l1	mm	4045	4045	4080	4130
4.20		Length at fork heels	l2	mm	2945	2945	2980	3030
4.21		Total width (overall)	b1	mm	1323	1323	1323	1323
4.22		Fork dimensions	s / e / l	mm	40 / 100 / 1100	40 / 100 / 1100	45 / 100 / 1100	45 / 125 / 1100
4.23		Fork carriage to DIN 15173 A/B			FEM2A	FEM2A	FEM3A	FEM3A
4.24		Width of fork carriage	b3	mm	1260	1260	1260	1260
4.31		Ground clearance below mast	m1	mm	270	270	270	270
4.32		Ground clearance at centre of wheel-base	m2	mm	260	260	260	260
4.33		Width of aisle for pallet 1000 x 1200 crossways	Ast	mm	4490	4525	4560	4595
4.34		Width of aisle for pallet 800 x 1200 lengthways	Ast	mm	4590	4625	4660	4695
4.35		Turning radius	Wa	mm	2600	2600	2635	2665
4.36		Inner turning radius	b13	mm	150	150	150	150
<b>Performances</b>	5.1	Speed of travel laden / unladen		km/h	20 / 20	20 / 20	20 / 20	20 / 20
	5.2	Speed of raise laden / unladen		m/s	0.4 / 0.5	0.4 / 0.5	0,4 / 0,5	0,4 / 0,5
	5.3	Speed of lowering laden / unladen		m/s	0.5 / 0.4	0.5 / 0.4	0,5 / 0,4	0,4 / 0,3
	5.5	Nominal towing power laden / unladen		daN	2280 / 1370	2280 / 1370	2460 / 1260	2640 / 1560
	5.7	Gradeability with / without load		%	33 / 37	31 / 32	24 / 29	29 / 29
	5.10	Service brake			Hydraulic	Hydraulic	Hydraulic	Hydraulic
<b>Motors</b>	7.1	Manufacturer / Type of engine			Kubota V2403 CR TE4	Kubota V2403 CR TE4	Kubota V2403 CR TE4	Kubota V2403 CR TE4
	7.2	Power delivery		kW	48,6	48,6	48,6	48,6
	7.3	Regime nominal		tr/min	2700	2700	2700	2700
	7.4	Number of pistons / Cubic capacity		cm <sup>3</sup>	4/2434	4/2434	4/2434	4/2434
<b>Miscellan.</b>	8.1	Power control			Hydraulic	Hydraulic	Hydraulic	Hydraulic
	8.2	Operating pressure for attachments		bar	140	170	185	190
	8.3	Oil flow for attachments		l/min	77	77	77	77
	8.4	Average noise level for the driver (in motion) measured / guaranteed		db (A)				

1- 1- Values with duplex mast

Data is based on standard configurations (forks, mast).  
Performance data and dimensions are nominal and subject to tolerances.  
Manitou products and their specifications are subject to change without notice.

# DIMENSIONAL DRAWINGS



# MASTS AND RESIDUAL CAPACITIES

MSI 2,0 & 2,5 T			Total Visibility Duplex									
			DVT27	DVT30	DVT33	DVT35	DVT37	DVT40	DVT45	DVT50	DVT55	DVT60
h3	Lift height	mm	2700	3000	3300	3500	3700	4000	4500	5000	5500	6000
h1	Height mast lowered	mm	2000	2150	2300	2400	2560	2750	3000	3250	3500	3790
h2	Free lift	mm	130	130	130	130	130	130	130	130	130	130
h4	Height mast extended*	mm	3531	3831	4131	4331	4531	4831	5331	5831	6331	6831
	Residual capacity at max height MSI20 - c=500	kg	2000	2000	2000	2000	2000	2000	1800	1500	-	-
	Residual capacity at max height MSI25 - c=500	kg	2500	2500	2500	2500	2500	2500	2200	1900		
	Tilt of mast forwards / backwards	deg	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	6 / 6	6 / 6	6 / 6

MSI 2,0 & 2,5 T			Free Lift Triplex								
			TLL37	TLL40	TLL43	TLL47	TLL50	TLL55	TLL60	TLL65	TLL70
h3	Lift height	mm	3700	4000	4300	4700	5000	5500	6000	6600	7000
h1	Height mast lowered	mm	1950	2050	2150	2300	2400	2560	2750	3000	3250
h2	Free lift	mm	1221	1321	1421	1571	1671	1831	2021	2271	2521
h4	Height mast extended*	mm	4469	4769	5069	5469	5769	6269	6769	7269	7769
	Residual capacity at max height MSI20 - c=500	kg	2000	2000	2000	1700	1500	1300	1000	-	-
	Residual capacity at max height MSI25 - c=500	kg	2500	2500	2400	2100	1900	1500	1500		
	Tilt of mast forwards / backwards	deg	10 / 12	10 / 12	10 / 12	10 / 12	6 / 6	6 / 6	6 / 6	6 / 6	6 / 6

\* Without backrest

MSI 3,0 & 3,5 T			Total Visibility Duplex								
			DVT30	DVT33	DVT35	DVT37	DVT40	DVT45	DVT50	DVT55	DVT60
h3	Lift height	mm	3000	3300	3500	3700	4000	4500	5000	5500	6000
h1	Height mast lowered	mm	2150	2300	2400	2560	2750	3000	3250	3500	3790
h2	Free lift	mm	135	135	135	135	135	135	135	135	135
h4	Height mast extended*	mm	3893	4193	4393	4593	4893	5396	5863	6393	6893
	Residual capacity at max height MSI30 - c=500	kg	3000	3000	3000	3000	3000	2600	2400	1900	1500
	Residual capacity at max height MSI35 - c=500	kg	3500	3500	3500	3500	3400	2900	2700	-	-
	Tilt of mast forwards / backwards	deg	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	10 / 12	6 / 6	6 / 6	6 / 6

MSI 3,0 & 3,5 T			Free Lift Triplex								
			TLL37	TLL40	TLL43	TLL47	TLL50	TLL55	TLL60	TLL65	TLL70
h3	Lift height	mm	3700	4000	4300	4700	5000	5500	6000	6600	7000
h1	Height mast lowered	mm	2050	2150	2300	2400	2560	2750	3000	3250	3500
h2	Free lift	mm	1297	1397	1547	1647	1807	1997	2247	2497	2747
h4	Height mast extended*	mm	4500	4800	5100	5500	5800	6300	6800	7300	7800
	Residual capacity at max height MSI30 - c=500	kg	3000	3000	2800	2600	2400	1900	1500	-	-
	Residual capacity at max height MSI35 - c=500	kg	3400	3400	3000	2600	2700	2200	1800	1200	
	Tilt of mast forwards / backwards	deg	10 / 12	10 / 12	10 / 12	10 / 12	6 / 6	6 / 6	6 / 6	6 / 6	6 / 6

# 4000 - 5000 kg / stage 3B

## TECHNICAL SPECS

				MANITOU	MANITOU	
				MSI 40 T	MSI 50 T	
Specifications	1.1	Manufacturer				
	1.2	Model				
	1.3	Power source		Diesel	Diesel	
	1.4	Driving position		Seated	Seated	
	1.5	Nominal capacity	Q	t	4	5
	1.6	Load - centre of gravity	c	mm	500	600
	1.8	Distance from the load-bearing surface to centre of front axle	x	mm	691	701
	1.9	Wheelbase	y	mm	2075	2075
	Weight	2.1	Operating weight		kg	6980
2.2		Axle load, with load, front / rear		kg	9245 / 1735	11467 / 1953
2.3		Axle load, without load, front / rear		kg	3210 / 3770	3489 / 4931
Tyres, frame	3.1	Tyre equipment: cushion (V), superelastic (SE), pneumatic (L)			L	L
	3.2	Size of front wheels			315/70 R22,5	315/70 R22,5
	3.3	Size of rear wheels			225/75 R15	225/75 R15
	3.5	Number of front wheels (x = drive wheel) / rear wheels			2x / 2	2x / 2
	3.6	Front wheel gauge (middle of wheels)	b10	mm	1420	1420
	3.7	Rear wheel gauge (middle of wheels)	b11	mm	1142	1142
	Dimensions	4.1	Tilt of mast forwards / backwards (1)	$\alpha / \beta$	deg	10 / 12
4.2		Height mast lowered	h1	mm	2775	2775
4.3		Free lift	h2	mm	-	-
4.4		Lift height	h3	mm	3700	3700
4.5		Height mast extended	h4	mm	4677	4672
4.7		Height of overhead guard (cabin)	h6	mm	2440	2440
4.8		Height of seat	h7	mm	1300	1300
4.12		Height of towing bar	h10	mm	540	540
4.19		Overall length	l1	mm	4494	4584
4.20		Length at fork heels	l2	mm	3294	3384
4.21		Total width (overall)	b1	mm	1732	1732
4.22		Fork dimensions	s / e / l	mm	50 / 150 / 1200	60 / 150 / 1200
4.23		Fork carriage to DIN 15173 A/B			FEM3A	FEM4A
4.24		Width of fork carriage	b3	mm	1670	1670
4.31		Ground clearance below mast	m1	mm	185	185
4.32		Ground clearance at centre of wheel-base	m2	mm	225	225
4.33		Width of aisle for pallet 1000 x 1200 crossways	Ast	mm	4756	5041
4.34		Width of aisle for pallet 800 x 1200 lengthways	Ast	mm	4956	5241
4.35		Turning radius	Wa	mm	2865	2950
4.36		Inner turning radius	b13	mm	125	125
Performances	5.1	Speed of travel laden / unladen		km/h	22 / 22	22 / 22
	5.2	Speed of raise laden / unladen		m/s	0.6 / 0.6	0.5 / 0.5
	5.3	Speed of lowering laden / unladen		m/s	0.4 / 0.5	0.4 / 0.4
	5.5	Nominal towing power laden / unladen		daN	3180 / 2020	3350 / 2420
	5.7	Gradeability with / without load		%	24 / 29	24 / 26
	5.10	Service brake			Hydraulic	Hydraulic
Motors	7.1	Manufacturer / Type of engine			PERKINS (3B) 854 F 10794	PERKINS (3B) 854 F 10794
	7.2	Power delivery		kW	55	55
	7.3	Régime nominal		tr/min	2200	2200
	7.4	Number of pistons / Cubic capacity		cm <sup>3</sup>	4/3400	4/3400
Miscellan.	8.1	Power control			Hydraulic	Hydraulic
	8.2	Operating pressure for attachments		bar	230	230
	8.3	Oil flow for attachments		l/min	103	103
	8.4	Average noise level for the driver (in motion) measured / guaranteed		db (A)	81	81

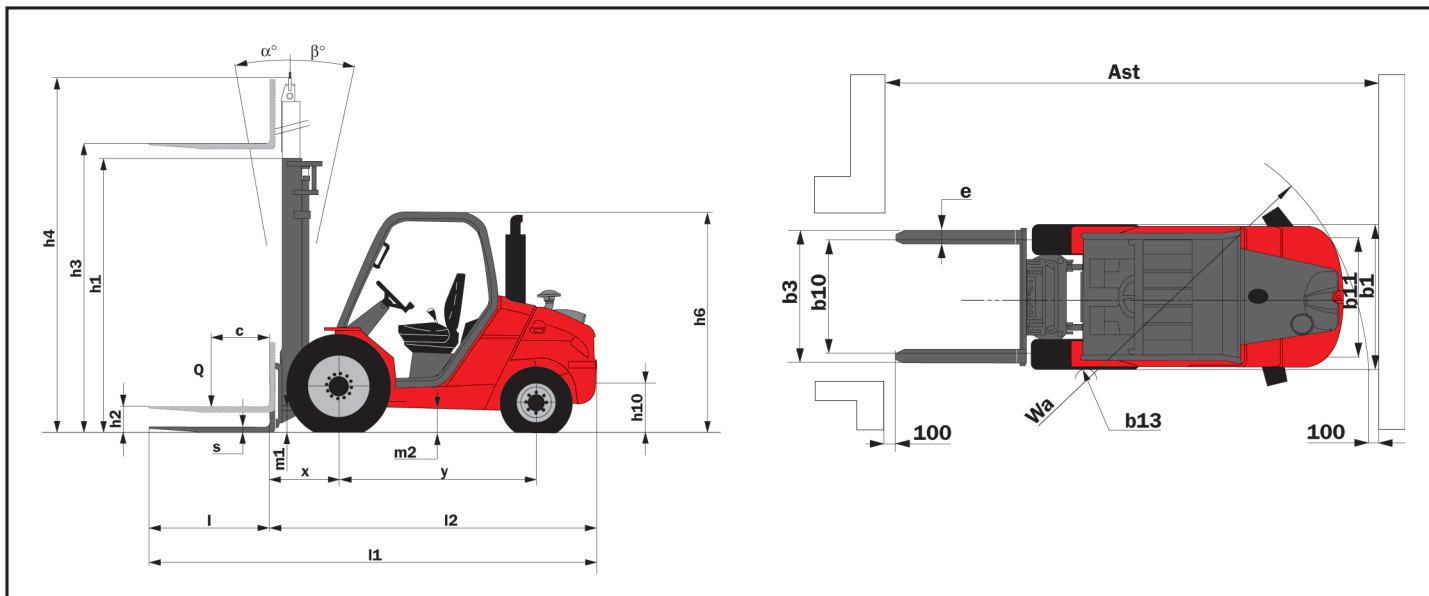
1- 1- Values with duplex mast

Data is based on standard configurations (forks, mast).

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# DIMENSIONAL DRAWINGS



# MASTS AND RESIDUAL CAPACITIES

MSI 40 T CDG 500 mm			Total Visibility Duplex						
			DVT30	DVT33	DVT35	DVT37	DVT40	DVT45	DVT50
h3	Lift height	mm	3000	3300	3500	3700	4000	4500	5000
h1	Height mast lowered	mm	2425	2575	2675	2775	2925	3175	3425
h2	Free lift	mm	-	-	-	-	-	-	-
h4	Height mast extended*	mm	3977	4277	4477	4677	4977	5477	5977
Residual capacity at max height MSI40 - c=500		kg	4000	4000	4000	4000	4000	4000	4000

MSI 40 T CDG 500 mm			Free Lift Triplex							
			TLL37	TLL40	TLL43	TLL45	TLL47	TLL50	TLL55	TLL60
h3	Lift height	mm	3700	4000	4300	4500	4700	5000	5500	6000
h1	Height mast lowered	mm	2175	2275	2375	2450	2510	2625	2775	2950
h2	Free lift	mm	1258	1358	1458	1533	1593	1708	1858	2033
h4	Height mast extended*	mm	4667	4967	5267	5467	5667	5967	6467	6967
Residual capacity at max height MSI40 - c=500		kg	40000	4000	4000	4000	3800	3700	3500	3400

\* Without backrest

MSI 50 T CDG 600 mm			Total Visibility Duplex						
			DVT30	DVT33	DVT35	DVT37	DVT40	DVT45	DVT50
h3	Lift height	mm	3000	3300	3500	3700	4000	4500	5000
h1	Height mast lowered	mm	2425	2575	2675	2775	2925	3175	3425
h2	Free lift	mm	-	-	-	-	-	-	-
h4	Height mast extended*	mm	3972	4272	4472	4672	4972	5472	5972
Residual capacity at max height MSI50 - c=500		kg	5000	5000	5000	5000	5000	4800	4800

MSI 50 T CDG 600 mm			Free Lift Triplex							
			TLL37	TLL40	TLL43	TLL45	TLL47	TLL50	TLL55	TLL60
h3	Lift height	mm	3700	4000	4300	4500	4700	5000	5500	6000
h1	Height mast lowered	mm	2175	2275	2375	2450	2510	2625	2775	2950
h2	Free lift	mm	1263	1363	1463	1538	1598	1713	1863	2038
h4	Height mast extended*	mm	4662	4962	5262	5462	5662	5962	6462	6962
Residual capacity at max height MSI50 - c=500		kg	4900	4900	4900	4800	4600	4400	3800	3100

\* Without backrest

Your nearest MANITOU dealer :



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