Technical sheet:

MSI-X 25





Manifacturer		Technical characteristics		Metric
Power source	1.1			Manitou
Section Sect	1.2	Model Name		MSI-X_25
Max. capacity	1.3	Power source		Diesel
Load center of graphy C	1.4	Operator type		Seated
Load distance, centre of drive axie to fook x 1900 mm	1.5	Max. capacity	Q	2500 kg
	1.6	Load center of gravity	С	500 mm
	1.8	Load distance, centre of drive axle to fork	x	621 mm
1.1 Senice weight 3875 kg 5510 kg / 855 kg / 8510 kg / 8	1.9	Wheelbase	у	1900 mm
		Weight		
	2.1	Service weight		3875 kg
	2.2	Weight on front axle (laden) / rear axle (laden)		5510 kg / 865 kg
Time stype	2.3	Weight on front axle (Unladen) / rear axle (Unladen)		1533 kg / 2342 kg
1.2 Dimensions of front wheels 300-15/18 6T R43 300-15/18 R44 300-15/18		Wheels		
1.00	.1	Tires type		Inflatable
1.5 Number of front wheels / rear wheels 2 / 2	3.2			300-15/18 6T R43
1.5 Number of front wheels / rear wheels 2 / 2	3.3	Dimensions of rear wheels		7.00-12/12 ED PLUS
Front wheel gauge		Number of front wheels / rear wheels		
1.6 Front wheel gauge	5.2	Number of drive wheels		2
	3.6		b10	1044 mm
1.7 Height of owehead guard (cabin) h6 2095 mm 1.8 Seat height (stand height h7 972 mm 19 Overall length 11 4193 mm 20 Length to face of forks 12 3043 mm 21 Overall width 51 1330 mm 22 Fork section / width / length 5 / e / 40 mm x 122 mm x 1150 mm 23 Fork carriage Width 53 1250 mm 24 Fork carriage width 53 1260 mm 31 Ground clearance at centre of wheelbase m2 238 mm 32 Fork dariage Width or pallets 1000 x 1200 crossways Ast 4591 mm 33 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 34 Tuming radius Wa 2520 mm 41 Tavel speed (laden / unladen) Tavel speed (laden / unladen) 18km/h·22 km/h 43 Loweing speed (laden / unladen) 2010 m/s-0.50 m/s 45 Darwbar pull (Laden / Unladen) 40.50 m/s-0.30 m/s 47 Gradeability (laden / u	3.7	Rear wheel gauge	b11	1108 mm
1.8 Seat height/stand height h7 972 mm 1.9 Overall length 11 4193 mm 2.0 Length to face of forks 12 3043 mm 2.1 Overall width b1 1330 mm 2.2 Fork section / width / length s / e / 1 40 mm x 122 mm x 1150 mm 2.2 Fork carriage width b3 1260 mm 2.4 Fork carriage width b3 1260 mm 3.1 Ground clearance below mast m1 260 mm 3.2 Ground clearance at centre of wheelbase m2 238 mm 3.3 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 3.3 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 3.5 Tuming radius Wa 2620 mm 4 Tuming radius 18 km/h-22 km/h 3.2 Lifting speed (laden / unladen) 18 km/h-22 km/h 3.2 Lifting speed (laden / unladen) 0.50 m/s-0.50 m/s 3.3 Ais Lifting speed (laden / unladen) 33 % / 34 % <		Dimensions		
19 Overall length	4.7	Height of overhead guard (cabin)	h6	2095 mm
Length to face of forks 12 3043 mm 21 Overall width 1330 mm 22 Forks section / width / length 5 / e / 40 mm x 122 mm x 1150 mm 23 Fork carriage width 5 / e / 2A 24 Fork carriage width 5 / e / 2A 24 Fork carriage width 5 / e / e / e / e / e / e / e / e / e /	1.8	Seat height/stand height	h7	972 mm
221 Overall width 1 1330 mm 222 Fork section / width / length s / e / l 40 mm x 122 mm x 1150 mm 233 Fork carriage ISO 2328 (class/form) A/B 2A 24 Fork carriage width 53 1260 mm 31 Ground clearance below mast m1 260 mm 32 Ground clearance at centre of wheelbase m2 238 mm 33 A isle Width for pallet 1000 x 1200 crossways Ast 4591 mm 33 Tuming radius 8 2620 mm 4 Performances 8 2620 mm 5.1 Travel speed (laden / unladen) 18 km/h-22 km/h 6.2 Lifting speed (laden / unladen) 0.50 m/s-0.50 m/s 6.3 Lowering speed (laden / unladen) 20.50 m/s-0.30 m/s 6.5 Drawbar pull (Laden / Unladen) 33 % / 34 % 6.7 Gradeability (laden / unladen) 4 4 Hydraulic bases by loss of pressure 6.1 Engine Hydraulic bases by loss of pressure 4 4 Kubota / V2403 / Stage IIIA 7.2 L. Engine brand / model / norm	.19		l1	4193 mm
222 Forks section / width / length s / e / l 40 mm x 122 mm x 1150 mm 233 Fork carriage ISO 2328 (class/form) A/B B 2A 244 Fork carriage width b3 1260 mm 31 Ground clearance at centre of wheelbase m2 238 mm 32 Ground clearance at centre of wheelbase m2 238 mm 33 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 35 Turning adius Wa 2620 mm Performances Turning adius 18 km/h-22 km/h 4.1 Travel speed (laden / unladen) 0.50 m/s-0.50 m/s 5.2 Lifting speed (laden / unladen) 0.50 m/s-0.30 m/s 6.2 Lifting speed (laden / unladen) 2010 daN / 1250 daN 6.5 Drawbar pull (Laden / Unladen) 2010 daN / 1250 daN 6.5 Drawbar pull (Laden / Unladen) 80 daN / 434 % 6.10 Service brake Hydraulic brakes by loss of pressure 6.1 Engine Kubota / V2403 / Stage IIIA 6.2 I.C. Engine power rating 80 kW	.20	Length to face of forks	12	3043 mm
23 Fork carriage ISO 2328 (class/form) A/B 2A 24 Fork carriage width b3 1260 mm 31 Ground clearance at centre of wheelbase m1 260 mm 32 Ground clearance at centre of wheelbase m2 238 mm 33 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 35 Tuming radius Wa 2620 mm Performances 1 Travel speed (laden / unladen) 18 km/h-22 km/h 1.2 Lifting speed (laden / unladen) 0.50 m/s-0.50 m/s 1.3 Lowering speed (laden / unladen) 0.50 m/s-0.30 m/s 1.5 Drawbar pull (Laden / Unladen) 2010 dah / 1250 dah 1.5 Drawbar pull (Laden / Unladen) 33 % / 34 % 1.0 Gradeability (laden / unladen) 33 % / 34 % 1.0 Gradeability (laden / unladen) 8 Hydraulic brakes by loss of pressure 1.1 Engine brand / model / norm Kubota / V2403 / Stage IllA 1.2 I.C. Engine power rating Kubota / V2403 / Stage IllA 1.4 Number of cylinders / Capacity of	.21	Overall width	b1	1330 mm
23 Fork carriage ISO 2328 (class/form) A/B 2A 24 Fork carriage width b3 1260 mm 31 Ground clearance below mast m1 260 mm 32 Ground clearance at centre of wheelbase m2 238 mm 33 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 35 Tuming radius Wa 2620 mm Performances 1 Travel speed (laden / unladen) 18 km/h-22 km/h 1.2 Lifting speed (laden / unladen) 0.50 m/s-0.50 m/s-0.30 m/s 1.3 Lowering speed (laden / unladen) 2010 dah / 1250 dah 1.5 Drawbar pull (Laden / Unladen) 2010 dah / 1250 dah 1.5 Drawbar pull (Laden / Unladen) 33 % / 34 % 1.0 Gradeability (laden / unladen) 33 % / 34 % 1.0 Gradeability (laden / unladen) 40 m/y dam 1.0 Gradeability (laden / unladen) Kubata / Va203 / Stage Illa 1.1 Engine brand / model / norm Kubata / Va203 / Stage Illa 1.2 I.C. Engine power rating Kubata / Va203	.22	Forks section / width / length	s / e / l	40 mm x 122 mm x 1150 mm
331 Ground clearance below mast m1 260 mm 332 Ground clearance at centre of wheelbase m2 238 mm 333 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 35 Tuming radius Wa 2620 mm Performances ************************************	1.23	Fork carriage ISO 2328 (class/form) A/B		2A
32 Ground clearance at centre of wheelbase m2 238 mm 33 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 35 Tuming radius Wa 2620 mm Performances 1.1 Travel speed (laden / unladen) 18 km/h-22 km/h 5.2 Lifting speed (laden / unladen) 0.50 m/s-0.50 m/s 5.3 Lowering speed (laden / unladen) 2010 daN / 1250 daN 5.5 Drawbar pull (Laden / Unladen) 2010 daN / 1250 daN 6.7 Gradeability (laden / unladen) 33 % / 34 % 6.10 Service brake Hydraulic brakes by loss of pressure 7.1 Engine Kubota / V2403 / Stage IllA 8.2 I.C. Engine power rating 36 kW 8.3 Rated speed 2700 rpm 9.4 Number of cylinders / Capacity of cylinders 4-2434 cm³ 9.4 Miscellaneous 180 bar 9.4 Working hydraulic pressure for attachments 180 bar 9.4 Working hydraulic pressure for attachments 45 l/min 9.4 Miscellaneous	.24	Fork carriage width	b3	1260 mm
33 Aisle Width for pallets 1000 x 1200 crossways Ast 4591 mm 33 Tuming radius Wa 2620 mm Performances 5.1 Travel speed (laden / unladen) 18 km/h-22 km/h 5.2 Lifting speed (laden / unladen) 0.50 m/s -0.50 m/s 5.3 Lowering speed (laden / unladen) 2010 dan / 1250 dan 5.5 Drawbar pull (Laden / Unladen) 2010 dan / 1250 dan 5.7 Gradeability (laden / unladen) 33 % / 34 % 6.10 Service brake Hydraulic brakes by loss of pressure 6.10 Service brake Hydraulic brakes by loss of pressure 6.1 Engine Kubota / V2403 / Stage IllA 6.2 I.C. Engine power rating 36 kW 6.3 Rated speed 2700 rpm 6.4 Number of cylinders / Capacity of cylinders 4 - 2434 cm² 6.4 Miscellaneous Cable 6.1 Type of drive control Cable 6.2 Working hydraulic pressure for attachments 180 bar 6.3 Oil flow rate for attachments 4 5	1.31	Ground clearance below mast	m1	260 mm
3.5 Tuming radius Wa 2620 mm Performances Italy speed (laden / unladen) 18 km/h-22 km/h 5.1 Travel speed (laden / unladen) 0.50 m/s -0.50 m/s 5.2 Lifting speed (laden / unladen) 0.50 m/s -0.30 m/s 5.3 Lowering speed (laden / unladen) 2010 daN / 1250 daN 5.5 Drawbar pull (Laden / unladen) 2010 daN / 1250 daN 5.7 Gradeability (laden / unladen) 33 % / 34 % 5.0 Sevrice brake Hydraulic brakes by loss of pressure 5.1 Engine Kubota / V2403 / Stage IIIA 5.2 L.C. Engine power rating 36 kW 3.3 Rated speed 2700 rpm 4.4 Number of cylinders / Capacity of cylinders 4-2434 cm³ 4.4 Miscellaneous Cable 5.1 Type of drive control Cable 6.2 Working hydraulic pressure for attachments 180 bar 6.3 Oil flow rate for attachments 45 l/min 6.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB	.32	Ground clearance at centre of wheelbase	m2	238 mm
Performances	.33	Aisle Width for pallets 1000 x 1200 crossways	Ast	4591 mm
Performances	.35	•		
5.1 Travel speed (laden / unladen) 18 km/h-22 km/h 5.2 Lifting speed (laden / unladen) 0.50 m/s-0.50 m/s 5.3 Lowering speed (laden / Unladen) 0.50 m/s-0.30 m/s 5.5 Drawbar pull (Laden / Unladen) 2010 daN / 1250 daN 5.7 Gradeability (laden / unladen) 33 % / 34 % 5.10 Sevice brake Hydraulic brakes by loss of pressure Engine Kubota / V2403 / Stage IIIA 7.1 Engine brand / model / norm Kubota / V2403 / Stage IIIA 7.2 I.C. Engine power rating 36 kW 7.3 Rated speed 2700 rpm 7.4 Number of cylinders / Capacity of cylinders 4 - 2434 cm³ 8.1 Type of drive control Cable 8.2 Working hydraulic pressure for attachments 180 bar 8.3 Oil flow rate for attachments 45 l/min 8.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB				
5.2 Lifting speed (laden / unladen) 0.50 m/s-0.50 m/s 5.3 Lowering speed (laden / Unladen) 0.50 m/s-0.30 m/s 5.5 Drawbar pull (Laden / Unladen) 2010 daN / 1250 daN 5.7 Gradeability (laden / unladen) 33 % / 34 % 5.0 Hydraulic brakes by loss of pressure 6.1 Engine Kubota / V2403 / Stage IllA 6.2 L.C. Engine power rating 36 kW 6.3 Rated speed 2700 rpm 6.4 Number of cylinders / Capacity of cylinders 4 - 2434 cm³ 6.4 Miscellaneous 4 - 2434 cm³ 6.1 Type of drive control Cable 6.2 Working hydraulic pressure for attachments 180 bar 6.3 Oil flow rate for attachments 45 l/min 6.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB	5.1			18 km/h-22 km/h
3.3 Lowering speed (laden / unladen) 0.50 m/s-0.30 m/s 5.5 Drawbar pull (Laden / Unladen) 2010 daN / 1250 daN 5.7 Gradeability (laden / unladen) 33 % / 34 % 5.10 Service brake Hydraulic brakes by loss of pressure 6.10 Engine 6.1.1 Engine brand / model / norm Kubota / V2403 / Stage IllA 6.2 I.C. Engine power rating 36 kW 6.3 Rated speed 2700 rpm 6.4 Number of cylinders / Capacity of cylinders 4 - 2434 cm³ 6.1 Type of drive control Cable 6.2 Working hydraulic pressure for attachments 180 bar 6.3 Oil flow rate for attachments 45 l/min 6.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB	5.2			
5.5 Drawbar pull (Laden / Unladen) 2010 daN / 1250 daN 5.7 Gradeability (laden / unladen) 33 % / 34 % 5.10 Service brake Hydraulic brakes by loss of pressure 6.1 Engine Kubota / V2403 / Stage IIIA 7.1 Engine brand / model / norm Kubota / V2403 / Stage IIIA 7.2 I.C. Engine power rating 36 kW 7.3 Rated speed 2700 rpm 7.4 Number of cylinders / Capacity of cylinders 4 - 2434 cm³ 8.1 Type of drive control Cable 9.2 Working hydraulic pressure for attachments 180 bar 9.3 Oil flow rate for attachments 45 l/min 9.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB	5.3	- ' '		
Gradeability (laden / unladen) Service brake Hydraulic brakes by loss of pressure Engine L1 Engine brand / model / norm Kubota / V2403 / Stage IIIA L2 I.C. Engine power rating A Rated speed L4 Number of cylinders / Capacity of cylinders Miscellaneous L1 Type of drive control L2 Working hydraulic pressure for attachments L3 Oil flow rate for attachments Measured/guaranteed mean noise level at the ear of the operator A Weasured/guaranteed mean noise level at the ear of the operator B A Service brake Hydraulic brakes by loss of pressure Kubota / V2403 / Stage IIIA A Skage IIIA A Stage	5.5			
Service brake	5.7	, , ,		
Engine Kubota / V2403 / Stage IIIA 1.1 Engine brand / model / norm Kubota / V2403 / Stage IIIA 1.2 I.C. Engine power rating 36 kW 1.3 Rated speed 2700 rpm 1.4 Number of cylinders / Capacity of cylinders 4 - 2434 cm³ Miscellaneous Cable 1.1 Type of drive control Cable 1.2 Working hydraulic pressure for attachments 180 bar 1.3 Oil flow rate for attachments 45 l/min 1.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB	.10			
2.1 Engine brand / model / norm Kubota / V2403 / Stage IIIA 2.2 I.C. Engine power rating 36 kW 3.3 Rated speed 2700 rpm 4.4 Number of cylinders / Capacity of cylinders 4 - 2434 cm³ Miscellaneous 3.1 Type of drive control Cable 3.2 Working hydraulic pressure for attachments 180 bar 3.3 Oil flow rate for attachments 45 l/min 4.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB				
1.2 I.C. Engine power rating 36 kW 1.3 Rated speed 2700 rpm 1.4 Number of cylinders / Capacity of cylinders 4 - 2434 cm³ Miscellaneous 1.1 Type of drive control Cable 1.2 Working hydraulic pressure for attachments 180 bar 1.3 Oil flow rate for attachments 45 l/min 1.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB	7.1			Kubota / V2403 / Stage IIIA
Rated speed 2700 rpm A Number of cylinders / Capacity of cylinders 4 - 2434 cm ³ Miscellaneous 200 In Type of drive control Cable 200 Working hydraulic pressure for attachments 180 bar 200 In Measured/guaranteed mean noise level at the ear of the operator 480 dB	7.2	•		-
Number of cylinders / Capacity of cylinders Miscellaneous 1.1 Type of drive control 2.2 Working hydraulic pressure for attachments 3.3 Oil flow rate for attachments 4.4 Measured/guaranteed mean noise level at the ear of the operator 4.2 Variance of the operator 4.2 A capacity of cylinders Cable Cable 1.80 bar 4.5 I/min 4.80 dB	'.3			
Miscellaneous 1.1 Type of drive control Cable 1.2 Working hydraulic pressure for attachments 180 bar 1.3 Oil flow rate for attachments 45 l/min 1.4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB	7.4	•		·
Type of drive control Cable Working hydraulic pressure for attachments 180 bar Oil flow rate for attachments 45 l/min Measured/guaranteed mean noise level at the ear of the operator < 80 dB				
Working hydraulic pressure for attachments 180 bar Cl. 2 Working hydraulic pressure for attachments 180 bar Cl. 3 Oil flow rate for attachments 45 l/min Cl. 4 Measured/guaranteed mean noise level at the ear of the operator < 80 dB	3.1			Cable
Oil flow rate for attachments 45 l/min Measured/guaranteed mean noise level at the ear of the operator < 80 dB		**		
Measured/guaranteed mean noise level at the ear of the operator < 80 dB	3.3			
,				
		·		

MSI-X 25 - Dimensional drawing



Characteristics of masts and residual capacities

Full Visibility Duplex (FVD)		FVD 30	FVD 33	FVD 37	FVD 40	FVD 45
α - Mast/fork carriage tilt, forward °		10	10	10	10	10
β - Mast/fork carriage tilt, backward	٠	12	12	12	12	12
h1 - Mast lowered height	mm	2136	2286	2546	2736	2986
h2 - Mast free lift	mm	85	85	85	85	85
h3 - Mast lifting height	mm	3000	3300	3700	4000	4500
h4 - Mast extended height	mm	3738	4038	4438	4738	5238
Residual capacity at max height	kg	2500	2500			
Height at max capacity	mm	3000	3300	2500	2500	2500

Free Lift Triplex (FLT)		FLT 34	FLT 37	FLT 40	FLT 43	FLT 47	FLT 55	FLT 60
α - Mast/fork carriage tilt, forward °		10	10	10	10	10	6	6
β - Mast/fork carriage tilt, backward	۰	12	12	12	12	12	6	6
h1 - Mast lowered height	mm	1936	2036	2136	2286	2386	2736	2986
h2 - Mast free lift	mm	1183	1283	1383	1483	1633	1893	2083
h3 - Mast lifting height	mm	3400	3700	4000	4300	4700	5500	6000
h4 - Mast extended height	mm	4184	4484	4784	5116	5484	6356	6916
Residual capacity at max height	kg	2500	2500	2500	2500	2500		
Height at max capacity	mm	3400	3700	4000	4300	4700	2500	2500

Full Visibility Triplex (FVT)		FVT 33
α - Mast/fork carriage tilt, forward	۰	10
β - Mast/fork carriage tilt, backward	۰	12
h1 - Mast lowered height	mm	1826
h2 - Mast free lift	mm	72
h3 - Mast lifting height	mm	3300
h4 - Mast extended height	mm	4027
Height at max capacity	mm	2500





Head Office

B.P. 249 - 430 rue de l'Aubinière 44150 Ancenis Cedex - France Tel: +33 (0)2 40 09 10 11 - Fax: +33 (0)2 40 09 10 97 www.manitou.com



This publication provides a description of the configuration versions and options for Manitou products, which may differ for equipment. The equipment presented in this brochure may be part of a series, as an option, or it may not be available, depending on the versions. Manitou reserves the right, at any time and without notice, to amend the specifications described and represented. The specifications provided do not bind the manufacturer. For more details, please contact your Manitou agent. This is not a contractually binding document. The presentation of the products is not contractually binding. List of specifications non-exhaustive. The logos as well as the visual identity of the company are owned by Manitou and cannot be used without authorisation. All rights reserved. The photos and diagrams contained in this brochure are only provided for consultation and information purposes.

MANITOU BF SA - Limited company with board of directors - Share capital: 39,668,399 euros - 857 802 508 RCS Nantes