



**STRONG PARTNERS.
TOUGH TRUCKS.™**



EMPTY CONTAINER HANDLERS

H18-23XM-12EC



8 500 – 9 000 KG @ 1220 MM

H18-23XM-12EC

DISTINGUISHING MARKS	1.1	Manufacturer (abbreviation)
	1.2	Manufacturer's type designation
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas
	1.4	Operator type: hand, pedestrian, standing, seated, orderpicker
	1.5	Rated capacity/rated load Q (t)
	1.6	Load centre c (mm)
	1.8	Load distance, centre of drive axle to face of side lift spreader without / with PPS x (mm)
	1.9	Wheelbase y (mm)
1.10.1	Stacking height at first row (number x container height, in feet)	
	Stacking height at first row (number x container height, in feet)	

WEIGHTS	2.1	Service weight ●	kg
	2.2	Axle loading, laden front / rear	kg
	2.3	Axle loading, unladen front / rear	kg

TYRES / CHASSIS	3.1	Tyres: L = pneumatic, V = cushion, SE = Pneumatic Shape Solid	
	3.2	Tyre size, front	
	3.3	Tyre size, rear	
	3.5	Number of wheels, front / rear (X = driven)	
	3.6	Tread, front ⇆	b ₁₀ (mm)
	3.7	Tread, rear	b ₁₁ (mm)

DIMENSIONS	4.1	Tilt of mast / fork carriage forward / backward	α / β (°)
	4.2	Height, mast lowered ○	h ₁ (mm)
	4.3	Free lift	h ₂ (mm)
	4.4	Lift *	h ₃ (mm)
	4.4.1	Spreader, distance from ground to twistlocks or hooks, min./max.	h _{3.1} (mm)
	4.5	Height, mast extended ○	h ₄ (mm)
	4.7	Height of cabin w/o / with airco	h ₅ (mm)
	4.7.1	Height of cabin with strobe light / with work lights	(mm)
	4.7.2	Height of cabin with airco and strobe light	(mm)
	4.8	Seat height relating to SIP ●	h ₇ (mm)
	4.19	Overall length ◆	l ₁ (mm)
	4.20	Length to face of side lift spreader w/o / with PPS ⇆	l ₂ (mm)
	4.21	Overall width ⇆	b ₁ / b ₂ (mm)
	4.24	Spreader width, retracted/extended	b ₃ (mm)
	4.31	Ground clearance, laden, below mast	m ₁ (mm)
	4.32	Ground clearance, centre of wheelbase	m ₂ (mm)
	4.34.3.1	Aisle width with 20' container without operating clearance	Ast20 (mm)
	4.34.3.2	Aisle width with 20' container with 200 mm operating clearance	Ast20 (mm)
	4.34.3.3	Aisle width with 20' container with 10% operating clearance	Ast20 (mm)
	4.34.4.1	Aisle width with 40' container without operating clearance	Ast40 (mm)
	4.34.4.2	Aisle width with 40' container with 200 mm operating clearance	Ast40 (mm)
	4.34.4.3	Aisle width with 40' container with 10% operating clearance	Ast40 (mm)
	4.35	Turning radius	Wa (mm)
	4.36	Internal turning radius ◎	b ₁₃ (mm)

ADDITIONAL DATA	5.1	Travel speed, laden / unladen	km/h
	5.1.1	Travel speed, laden / unladen, backwards	km/h
	5.2	Lift speed, laden / unladen	m/s
	5.2.1	Lift speed, laden with 70% load	m/s
	5.3	Lowering speed, laden / unladen	m/s
	5.5	Drawbar pull, laden / unladen	kN
	5.5.1	Drawbar pull, laden / unladen	
	5.7	Gradeability, laden / unladen * †	%
	5.7.1	Gradeability, laden / unladen * †	%
5.9	Acceleration time, laden/unladen		s

PERFORMANCE DATA	10.1	Operating pressure for attachments	MPa
	10.2	Oil volume for attachments	l/min
	10.3	Hydraulic oil tank, capacity	l
	10.4	Fuel tank, capacity	l
	10.4.1	DEF tank, capacity	l
	10.5	Steering design	
	10.6	Number of steering rotation	
	10.7	Sound pressure level at the driver's seat LpAZ *	dB (A)
10.7.1	Sound power level during the workcycle LwAZ		dB (A)

HYSTER		HYSTER		HYSTER		HYSTER	
H18XM-12EC		H18XM-12EC		H22XM-12EC		H23XM-12EC	
Diesel		Diesel		Diesel		Diesel	
Seated		Seated		Seated		Seated	
8.5		8.5		9.0		9.0	
1,220		1,220		1,220		1,220	
1,260	1,332	1,260	1,332	1,320	1,392	1,320	1,392
4,500		4,500		4,500		4,500	
6 x 8'6"		7 x 8'6"		2 on 5/7 x 8'6"		2 on 6/8 x 8'6"	
5 x 9'6"		6 x 9'6"		2 on 4/6 x 9'6"		2 on 5/7 x 9'6"	

33,404		34,469		36,354		38,919	
35,323	6,582	36,514	6,456	36,661	8,693	37,751	10,169
22,138	11,266	23,329	11,140	22,581	13,773	23,671	15,249

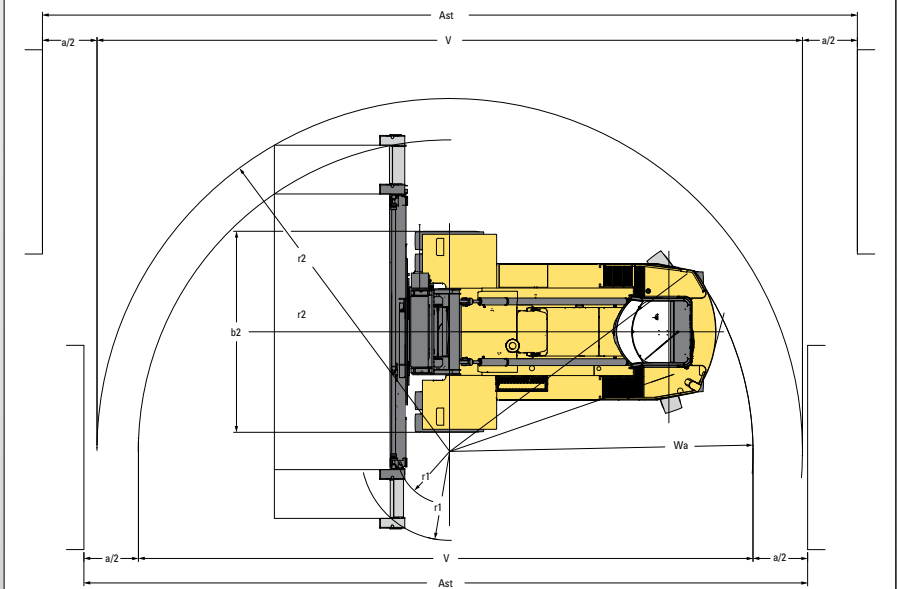
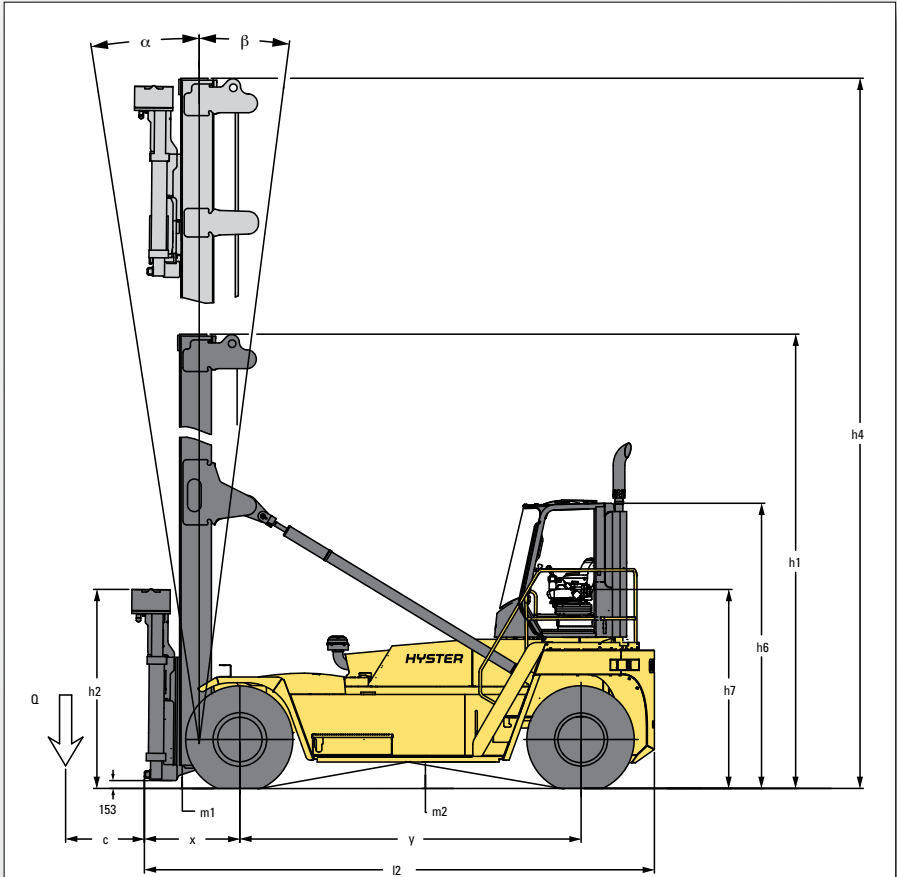
L		L		L		L	
14.00 - 24 24PR		14.00 - 24 24PR		14.00 - 24 24PR		14.00 - 24 24PR	
14.00 - 24 24PR		14.00 - 24 24PR		14.00 - 24 24PR		14.00 - 24 24PR	
x 4 / 2		x 4 / 2		x 4 / 2		x 4 / 2	
3,280	3,505	3,280	3,505	3,280	3,505	-	3,505
2,108		2,108		2,108		2,108	

4	3	4	3	4	3	4	3
9,492		10,792		9,492		10,792	
0		0		0		0	
13,850		16,450		13,850		16,450	
2,350	16,200	2,350	18,800	2,426	16,276	2,426	18,876
16,417		19,017		16,417		19,017	
3,872	3,905	3,872	3,905	3,872	3,905	3,872	3,905
4,004	4,063	4,004	4,063	4,004	4,063	4,004	4,063
4,078		4,078		4,078		4,078	
2,704		2,704		2,704		2,704	
9,165	9,237	9,165	9,237	9,225	9,297	9,225	9,297
6,727	6,799	6,727	6,799	6,787	6,859	6,787	6,859
4,108	4,333	4,108	4,333	4,108	4,333	4,333	
6,084	12,218	6,084	12,218	6,566	12,700	6,566	12,700
310		310		310		310	
411		411		411		411	
9,984		9,984		10,043		10,043	
10,184		10,184		10,243		10,243	
10,982		10,982		11,047		11,047	
13,751		13,751		14,235		14,235	
13,951		13,951		14,235		14,235	
15,126		15,126		15,438		15,438	
6,240		6,240		6,240		6,240	
2,445		2,445		2,445		2,445	

20	25	20	25	20	25	20	25
NA	NA	NA	NA	10	25	10	25
0.58	0.64	0.58	0.64	0.58	0.64	0.58	0.64
0.61		0.61		0.61		0.61	
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
162	164	162	163	162	163	161	163
200	203	199	203	199	203	200	203
39	34	35	34	35	34	38	33
51	34	45	34	45	34	49	33
TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA

22.5	22.5	22.5	22.5
100	100	100	100
268	268	268	268
350	350	350	350
38	38	38	38
Hydraulic power steering	Hydraulic power steering	Hydraulic power steering	Hydraulic power steering
4.4	4.4	4.4	4.4
TBA	TBA	TBA	TBA
TBA	TBA	TBA	TBA

TRUCK DIMENSIONS



r₁ = radius of swing of container attachment rear corner
r₂ = radius of swing of container front corner
Wa = outside turning radius of the truck
a = total operating clearance, a/2 is operating clearance at each side
a = 10% of V
V = (theoretical) 90 ~ stacking aisle width, no intrusive stacking width clearance
A_{ST} = V + a
A_{ST} = V + 10% of V

NOTES:

Specifications are affected by the condition of the vehicle and how it is equipped, as well as the nature and condition of the operating area. If these specifications are critical, the proposed application should be discussed with your dealer.

- Weights are based on the following specifications: Complete truck with cab, pneumatic tyres, mast and 20' – 40' spreader as specified.

⇆ Standard axle / wide axle

○ Unladen with new tyres

* Under twistlocks

● Full suspension seat in depressed position

◆ Including 8' load with MPS / with PPS

⇆ Length to load face of attachment with MPS / with PPS

◎ Centre of truck to centre of inner turning

* at 1.6 km/h.

✱ at stall.

† Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines. Follow instructions in the operating manual regarding operation on inclines.

* Measured according to the test cycles and based on the weighting values contained in EN12053.

NOTICE:

Care must be exercised when handling elevated loads. When the carriage and/or load is elevated, truck stability is reduced. It is important that mast tilt in either direction be kept to a minimum when loads are elevated. Operators must be trained and adhere to the instructions contained in the Operating Manual.

Hyster products are subject to change without notice.

Lift trucks illustrated may feature optional equipment.

CE Safety:

This truck conforms to the current EU requirements.

Specification data is based on VDI 2198

MAST AND CAPACITY INFORMATION

H18XM-12EC - 8 500 kg @ 1 220 mm

Stacking Height		2-stage NFL Mast	Spreader Lowered height h ₁₃ (mm)	Lift height h ₁ + h ₁₃ (mm)	Lowered height h ₁ (mm)	Extended height h ₄ (mm)	Mast tilt (fwd/bwd) (°)	Side Shift b ₂ (mm)	Truck Width b ₂ (mm)		Capacity (kg)
single											
9' 6"	8' 6"										
5	6	13,850	2,350	16,500	9,492	16,417	4/3	600	4,120	4,345	8,500

H18XM-12EC - 8 500 kg @ 1 220 mm

Stacking Height		2-stage NFL Mast	Spreader Lowered height h ₁₃ (mm)	Lift height h ₁ + h ₁₃ (mm)	Lowered height h ₁ (mm)	Extended height h ₁ (mm)	Mast tilt (fwd/bwd) (°)	Side Shift b ₂ (mm)	Truck Width b ₂ (mm)		Capacity (kg)
single											
9' 6"	8' 6"										
6	7	16,450	2,350	18,800	10,792	19,017	4/3	600	4,120	4,345	8,500

H22XM-12EC - 9 000 kg @ 1 220 mm

Stacking Height		2-stage NFL Mast	Spreader Lowered height h ₁₃ (mm)	Lift height h ₁ + h ₁₃ (mm)	Lowered height h ₁ (mm)	Extended height h ₄ (mm)	Mast tilt (fwd/bwd) (°)	Side Shift b ₂ (mm)	Truck Width b ₂ (mm)		Capacity (kg)
single											
double											
9' 6"	8' 6"										
5	6	13,850	2,350	16,200	9,492	16,417	4/3	600	4,120	4,345	9,000
6	7										

H23XM-12EC - 9 000 kg @ 1 220 mm

Stacking Height		2-stage NFL Mast	Spreader Lowered height h ₁₃ (mm)	Lift height h ₁ + h ₁₃ (mm)	Lowered height h ₁ (mm)	Extended height h ₄ (mm)	Mast tilt (fwd/bwd) (°)	Side Shift b ₂ (mm)	Truck Width b ₂ (mm)	Capacity (kg)
single										
double										
9' 6"	8' 6"									
5	6	16,450	2,350	18,800	9,492	16,417	4/3	600	4,345	9,000
6	7									

POWERTRAINS AND SPREADERS

DESIGNATION	1.1	Manufacturer (abbreviation)
	1.2	Manufacturer's type designation
	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas

POWER UNIT	7.1	Engine manufacturer / type
	7.2	Engine output according to ISO 1585 kW / min ⁻¹
	7.2.1	Max. engine power according to ISO 1585 kW / min ⁻¹
	7.3	Rated speed min ⁻¹
	7.3.1	Torque at 1/min Nm / min ⁻¹
	7.4	Number of cylinders / displacement (-)/cm ³
	7.5.1	Fuel consumption according to VDI cycle l/h
	7.5.2	Alternator A
	7.10	Battery voltage/nominal capacity (V)/(Ah)

DRIVE TRAIN	8.1	Type of drive unit
	8.2	Transmission manufacturer / type
	8.6	Wheel drive / drive axle manufacturer / type
	8.4	Service brake
	8.5	Parking brake

SPREADER	9.1	Manufacturer / type
	9.1.1	Pile slope spreader; mechanically (mm)
	9.1.2	Pile slope spreader; hydraulically powered (optional) (°)
	9.3	Size of containers feet (')
	9.4	Side shift b ₂ (mm)
	9.4.1	Telescoping time, extend / retract s

HYSTER		HYSTER	
H18XM-12EC		H22-23XM-12EC	
Diesel		Diesel	

Cummins	QSB 6.7	Cummins	QSB 6.7
168	2,000	168	2,000
168	2,000	168	2,000
2,000		2,000	
949	1,500	949	1,500
6	6,690	6	6,690
On request		On request	
120		120	
24	102	24	102

Torque Converter		Torque Converter	
ZF	5WG211	ZF	5WG211
Axle Tech	PRC1756W3H	Axle Tech	PRC1756W3H
Oil immersed disc		Oil immersed disc	
Dry disc on drive axle		Dry disc on drive axle	

ELME 588TB		ELME 584LD	
+/- 225		+/- 225	
+/- 6		+/- 6	
20 & 40		20 & 40	
+/- 600		+/- 600	
12	12	12	12

MODELS, STACKING HEIGHTS AND CAPACITIES

The Hyster Empty Container Handlers range H18-23XM-12EC

consists of following models:

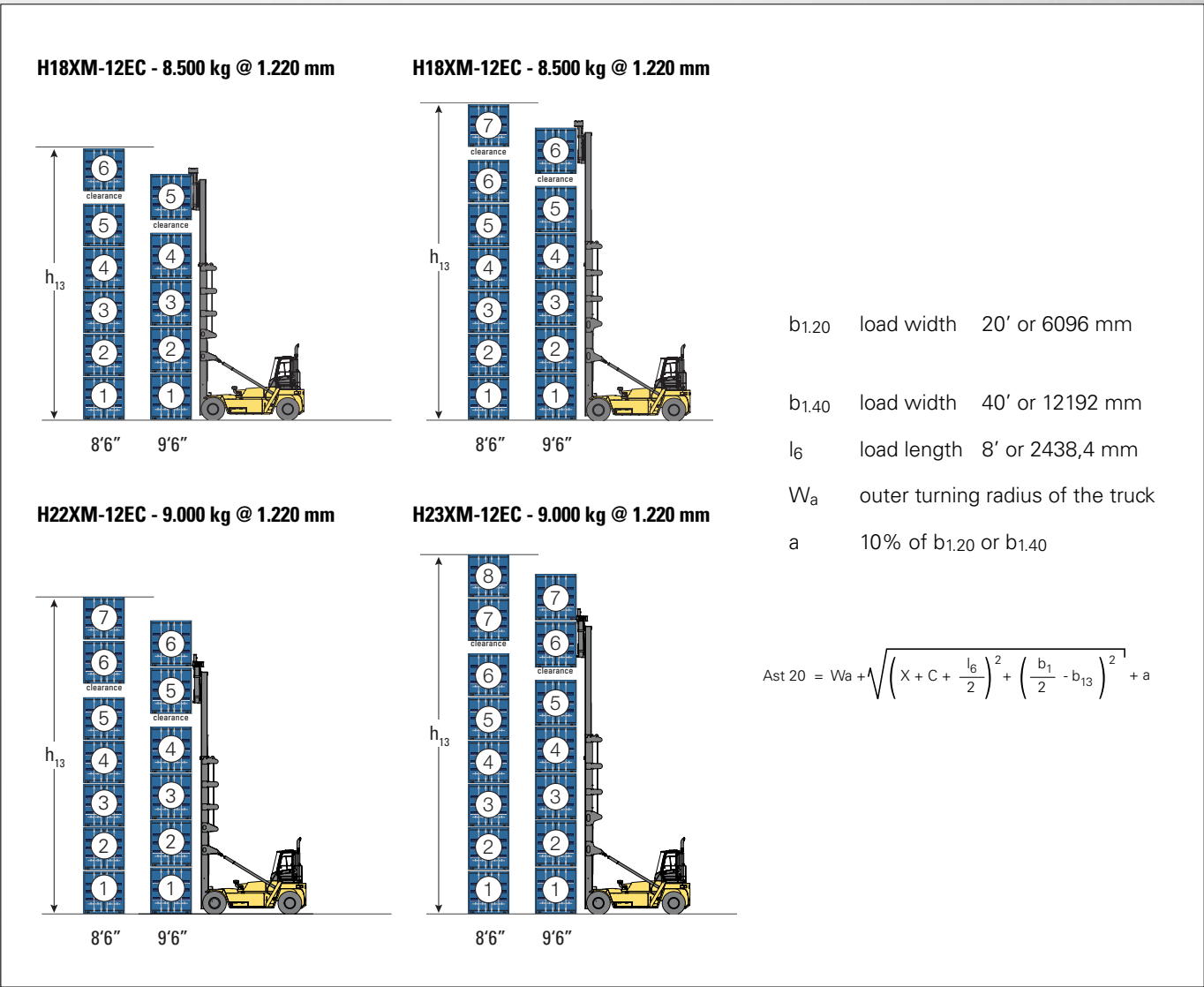
- H18XM-12EC Empty Container Handler, maximum 8500 kg, stacking 6 x 8'6" high or 5 x 9'6" high single containers.
- H18XM-12EC Empty Container Handler, maximum 8500 kg, stacking 7 x 8'6" high or 6 x 9'6" high single containers.
- H22XM-12EC Empty Container Handler, maximum 9000 kg, stacking '2 on 5/7' x 8'6" high or '2 on 4/6' x 9'6" high double containers, and also: 6 x 8'6" high or 5 x 9'6" high single containers.
- H23XM-12EC Empty Container Handler, maximum 9000 kg, stacking '2 on 6/8' x 8'6" high or '2 on 5/7' x 9'6" high double containers, and also: 7 x 8'6" high or 6 x 9'6" high single containers.

All capacities are according to ISO 10525.

Warning: Care must be exercised when handling elevated loads. When the spreader and/or load is elevated, truck stability is reduced. It is important that mast tilt be kept in back-tilted position or maximum in vertical position when mast / loads are elevated. Operators must be trained and adhere to the instructions contained in the Operating Manual.



LIFT HEIGHT TO HANDLE 8'6" - 9'6" HIGH CONTAINERS



FRONT END EQUIPMENT



Range of 2 stage NFL masts



Double handling spreader model 584LF 584LD



Double handling spreader model 584LB



Double handling spreader model 582LA with 2 horizontal Twistlocks



Single handling spreader model 586 588 589

STANDARD EQUIPMENT

- Cummins QSB 6.7L 168 / max 168 KW @ 2,000 rpm Turbo Diesel Engine
 - Stage IV Compliant
 - ECO-eLo / HiP performance modes
 - Hibernate Idle
 - Hydraulically driven cooling fan
- ZF WG 211 5 speed forward/3 speed reverse Hydrodynamic Transmission
- 2-stage NFL mast 1:4 lift ratio with 13.800 mm & 16.450 mm lift
- Spreader
 - Single handling: ELME 588TB Side lift with vertical Twist locks
 - Double handling: ELME 584LD Side lift with hooks & side clamps
- Wet Disc Brakes
- Standard Axle Tech PRC 1756 W3H Drive Axle, 4108 mm or 4.333 mm width for H23XM-12EC
- Hyster steer axle with hydrostatic power steering
- DANFOSS dual piston pump 150 ccm
- Hydraulic Control Joystick
- Mast Tilt: 4° Forward / 3° Backward
- Directional Control Lever
- Enclosed Cab without Air Conditioning includes:
 - Multifunction Display Panel
 - Interior Wide Angle Mirrors
 - Mirrors on front fenders
 - Telescoping & Tilting Steering Column
 - Floor Mat
 - I - style Front screen Wiper
- Heater
- Re-circulation Fan
- Powered Tilt Operator Compartment
- Tyres – Drive and Steer
 - 14.00 - 24 24PR Standard pneumatic
- Steering Wheel with Spinner Knob
- Air Horn
- Mechanical, Full Suspension Vinyl or Cloth Seat with integrated adjustable armrest and seat belt
- Operator Restraint System
- Operator Presence System
- Hydraulic Accumulator in hoist
- NON – lockable diesel fuel cab
- Lockable Battery Disconnect Switch
- 24V Electrical System
- 120 A Alternator
- Light Kit 1
 - HL rear cluster with stop, reverse and direction light
 - 4 x HL drive lights mounted on front fender
 - 4 x HL working lights mounted on front of the cab
 - 2 x HL working lights mounted on rear of cab
- Self adjustable back up Alarm volume > 5dB(A) ambient
- Amber strobe light - Ignition key and switch activated
- Literature Package
 - Operator's Manual
- Warranty
 - 12 Months / 2,000 Hours Manufacturer's Warranty

OPTIONAL EQUIPMENT

- 24-12V DC/DC Converter
- Pressure compensated lowering
- Masts (SPED)
 - 2-Stage NFL Mast 7x8'6" / 7x9'6" with maximum fork height of 18550 mm
 - 2-Stage NFL Mast 8x8'6" / 7x9'6" with maximum fork height of 19050mm
- Spreader
 - ELME 586TB Side lift with vertical Twist locks with removable block
 - ELME 589TB Side lift with moveable vertical Twist locks for wide container
 - ELME 584LB Side lift with hooks and side clamps
 - ELME 584LF Side lift with hooks and side clamps
 - ELME 582LA Side lift with double horizontal Twist locks
 - ELME 584LA Side lift with hooks and side clamps
- Drive axles
 - Extra wide Axle Tech PRC 1756 W3H 4.333 mm width (standard for H23XM-12EC)
- Steer axle with hydrostatic power steering with turning limitation for better tyre life
- Tyres – Drive and Steer
 - 14.00 - 24 Solid
 - 14.00 - R24 MICHELIN XZM radial
 - 14.00 - R24 Trelleborg radial
- Rear Mud Flaps
- Steer Wheel Nut Protection
- Cab options
 - Top and rear sun shades
 - Air conditioner, manual controlled
 - Air conditioner, automatically controlled
 - High Performance Air conditioner, manual controlled
 - High Performance Air conditioner, automatically controlled
 - Reading light
 - Trainer seat
 - Circulation Fan
 - IT console for on-board computer
 - Storage console
 - Heated TOP Window
 - Engine start interlock
 - Radio preparation, inclusive wire, two speakers and antenna
 - Single H - style Front screen Wiper
 - Wire mesh protection guard on Top of cab
- Seats
 - Mechanical, Full Suspension High backrest Vinyl or Cloth Seat
 - Pneumatic, Full Suspension Vinyl or Cloth Seat
 - Pneumatic, Full Suspension High backrest Vinyl or Cloth Seat
 - Deluxe Air Suspended Full Suspension Cloth Seat
 - Heated Deluxe Air Suspended Full Suspension Cloth Seat
- 3-point seat belt for Deluxe Seat
- Various Light Kits
- Lockable diesel fuel cab
- Storage Box for keeping TL on gangway of basic
- Pressure compensated lowering
- Engine Block Heater-230V
- NATO Start aid connector (24V)
- Traction Speed fix setting and in addition conditional traction speed limiter
- Automatic Engine Shutdown
- Hyster Tracker Wireless Asset Management system

STRONG PARTNERS. TOUGH TRUCKS.™

FOR DEMANDING OPERATIONS, EVERYWHERE.

Hyster supplies a complete range of warehouse equipment, IC and electric counterbalanced trucks, container handlers and reach stackers. Hyster is committed to being much more than a lift truck supplier.

Our aim is to offer a complete partnership capable of responding to the full spectrum of material handling issues: Whether you need professional consultancy on your fleet management, fully qualified service support, or reliable parts supply, you can depend on Hyster.

Our network of highly trained dealers provides expert, responsive local support. They can offer cost-effective finance packages and introduce effectively managed maintenance programmes to ensure that you get the best possible value. Our business is dealing with your material handling needs so you can focus on the success of your business today and in the future.



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