



# HIGH CAPACITY FORKLIFT TRUCKS

H16XM-9, H16XM-12, H18XM-7.5, H18XM-9







# H16XM-9, H18XM-7.5, H16XM-12, H18XM-9

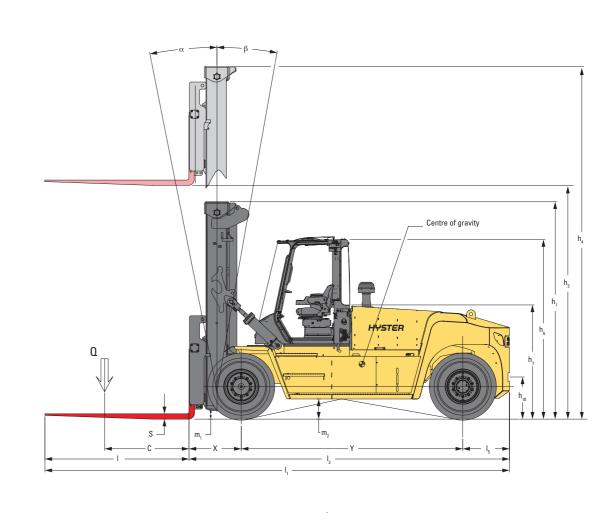
	1.1	Manufacturer (abbreviation)		HYS	TER	HYS	TER	HYS	TER	HYS	STER	
DISTINGUISHING MARKS	1.2	Manufacturer's type designition			(M-9		M-7.5		M-12		XM-9	
1 2	1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas		Die	sel	Die	sel	Die	sel	Di	esel	
	1.4	Operator type: hand, pedestrian, standing, seated, order-picker		Seated		Seated		Seated		Seated		
	1.5	Rated capacity / rated load Q (t)			16.0		18.0		16.0		18.0	
	1.6	Load centre distance	c (mm)	9	00	7:	50	1,2	200	9	100	
<b>1</b>	1.8	Load distance, centre of drive axle to fork +	x (mm)		73	97		97			173	
	1.9	Wheelbase	y (mm)	3,7	750	3,7	750	3,7	750	3,	750	
10	2.1	Service weight ●	kg	21	822	21	822	23	322	22	,322	
E	2.2	Axle loading, laden front / rear	kg	35,322	2,500	36,433	2,589	36,541	2,781	37,061	3,461	
WEIGHTS	2.3	Axle loading, unladen front / rear	kg	11,330	10,492	11,330	10,492	11,270	12,052	11,270	12,052	
	_				-	-		-	-	-	-	
10	3.1	Tyres: L = pneumatic, V = cushion, SE = Pneumatic Shape Solid			L		L	ı	L		L	
SSI	3.2	Tyre size, front		12.00	R 20	12.00	R 20	12.00	R 20	12.0	0 R 20	
書	3.3	Tyre size, rear			R 20		R 20		R 20		0 R 20	
IYRES / CHASSIS	3.5	Number of wheels, front / rear (X = driven)	1 ( )	x 4	2	x 4	2	x 4	2	x 4	2	
≥	3.6	Tread, front Tread, rear	b <sub>10</sub> (mm) b <sub>11</sub> (mm)	1,9	218	1,9	218	2,2			218 994	
	3.1	Tredu, rear	υ <sub>11</sub> (IIIIII)	1,3	134	1,5	134	1,5	134	1,	334	
	4.1	Tilt of mast/fork carriage forward/backward	α/β(°)	6°	10°	6°	10°	6°	10°	6°	10°	
	4.2	Height, mast lowered O	h, (mm)	3,9		3,9		3,9		-	985	
	4.3	Free lift	h <sub>2</sub> (mm)		)	(	)		)		0	
	4.4	Lift ¶	h <sub>3</sub> (mm)	4,4		4,4		4,4		-	494	
	4.5	Height, mast extended	h <sub>4</sub> (mm)	6,2		6,2		6,2		-	232	
	4.7	Height of overhead guard / closed cabin ■	h <sub>6</sub> (mm)	3,0		3,0		3,0		-	054	
	4.7.1	Height of closed cabin w'o / with aircon	h <sub>6</sub> (mm)	3,090	3,123	3,090	3,123	3,090	3,123	3,090	3,123	
	4.7.2 4.7.3	Height of overhead guard / closed cabin with strobe light  Height of overhead guard / closed cab with work lights	h <sub>e</sub> (mm)	3,2	22	3,2	222	3,2		-	222 281	
	4.7.4	Height of closed cab with aircon and strobe light	h, (mm)	3,2		3,2		3,2		-	296	
	4.8	Seat height relating to SIP •	h, (mm)	1,9		1,9		1,9		-	921	
	4.12	Coupling height	h, (mm)	7			13	7			13	
	4.17	Overhang	I <sub>s</sub> (mm)	75	91	79	91	79	91	7	91	
S	4.19	Overall length	I <sub>1</sub> (mm)	7,9	154	7,9	954	7,9	154	7,	954	
	4.20	Length to face of forks ■	l <sub>2</sub> (mm)	5,5	i14	5,5	514	5,5	i14	5,	514	
DIMENSIC	4.21	Overall width	b <sub>2</sub> (mm)		i42	2,5		2,5			542	
=	4.22	Fork dimensions ISO 2331	s/e/I (mm)	100 20			00 2.440	100 20			2.440	
	4.23	Fork carriage type			ion carriage hift and Fork		on carriage nift and Fork		on carriage hift and Fork		ion carriage hift and Fork	
		·			Hook type		Hook type		Hook type		g Hook type	
	4.24	Fork carriage width	b <sub>3</sub> (mm)		40	2,5		2,5		-	540	
	4.25	Distance over fork arms, minimum / maximum	b <sub>s</sub> (mm)	575	2,445	575	2,445	575	2,445	575	2,445	
	4.30	Sideshift @ width over forks Ground clearance, laden, below mast	b <sub>8</sub> / b <sub>5</sub> (mm)	+/-468	1,510	+/-468	1,510	+/-468	1,510	+/-468	1,510 87	
	4.31 4.32	Ground clearance, laden, below mast  Ground clearance, centre of wheelbase	m, (mm) m, (mm)	34		3/		3/			87 141	
	4.33	Load dimension b <sub>12</sub> × l <sub>2</sub> crossways	b <sub>12</sub> × I <sub>6</sub> (mm)		c 2.400		¢ 2.400		¢ 2.400		x 2.400	
	4.34.1	Aisle width predetermined load dimensions without operating clearance	Ast (mm)		73	8,5		8,5			573	
	4.34.2	Aisle width predetermined load dimensions with 200 mm operating clearance ◆	Ast (mm)	8,7	73	8,7	173	8,7	773	8,	773	
	4.34.3	Aisle width predetermined load dimensions with 10% operating clearance	Ast (mm)		30	9,4		9,4			430	
	4.35	Turning radius	W <sub>a</sub> (mm)		200	5,2			200		200	
_	4.36	Internal turning radius ♦	b <sub>13</sub> (mm)	2,0	126	2,0	)26	2,0	126	2,	026	
	5.1	Travel speed, laden/unladen *	km/h	27.1	28,7	27.1	28,7	27.1	28.7	27.1	28.7	
	5.2	Lift speed, laden/unladen	m/s	0.39	0.44	0.37	0.44	0.39	0.44	0.37	0.44	
≤	5.2.1	Lift speed, laden with 70% load	m/s		42	0.			42		.41	
ANCE DATA	5.3	Lowering speed, laden/unladen	m/s	0.54	0.45	0.54	0.45	0.54	0.45	0.54	0.45	
E	5.5.1	Drawbar pull, laden / unladen 🚨	kN	106	109	106	109	106	109	106	109	
	5.5.2	Drawbar pull, laden / unladen *	kN	120	123	120	123	120	123	120	123	
	5.7.1	Gradeability, laden/unladen †   Contact illinois de la contact de la con	%	30	36	29	36	29	33	27	33	
	5.7.2	Gradeability, laden/unladen † *  Acceleration time, laden/unladen	%	35	36 <b>2</b>	33	36	33	33	31	33 <b>2</b>	
	5.9 5.10	Service brake			rsed disc		rsed disc	Oil-imme			ersed disc	
	5.10		17773	Un minine		Oil lillille	. 200 0100	I On minie		Oil million		
	10.1	Operating pressure for attachments	MPa	19	0.5	19	9.5	19	0.5	1	9.5	
	10.2	Oil volume for attachments	I/min		00		00		00		00	
	10.3	Hydraulic oil tank, capacity	- 1		10		40		10		40	
	10.4	Fuel tank, capacity	1		06		06	20			206	
I I	10.4.1	DEF tank capacity	- 1	1	9	1	9	1	9		19	
₫.	10.5	Steering design			wer steering	Hydraulic po			wer steering		ower steering	
ADDITIONAL DATA	10.6	Number of steering rotation	12.111		.4		.4		i.4		5.4	
1	10.7	Sound pressure level at the driver's seat	dB (A)		4		4		74		74	
	10.7	Sound pressure level at the driver's seat ② ③	dB (A)		3 08		3 05		73 05		73 05	
	10.7.1	Sound power level during the working cycle ◆ Sound power level during the working cycle ◎	UD (A)		)8 )5		)5 )5		05 05		05	
	10.7.1	Towing coupling, type DIN			in .		in		in .		Pin	
	. 5.0	g soapinig, tipo siii						<u> </u>				

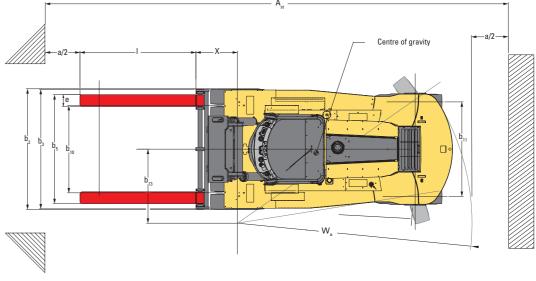
Specification data is based on VDI 2198

### **EQUIPMENT AND WEIGHT:**

Weights and axle loadings (lines 2.1, 2.2, 2.3) are based on the following specifications:
Complete truck with fully equipped cab, with 5300 mm BOF (5400 mm TOF) 2-stage LFL mast,
2540 mm wide Dual Function carriage with Side shift and Fork Positioning Hook type and 2440 mm long forks.

# TRUCK DIMENSIONS





= Centre of gravity of unladen truck

 $A_{ST} = Wa + x + L + a (IF b10/2 < b13)$ 

 $A_{ST} = AST = Wa + (L - x)^2 + (b10 - b13)^2 + a (IF b10/2 > b13)$ 

a  $\,$  =  $\,$  Minimum operating clearance = 10% of  $A_{ST}$ 

(VDI standard = 200 mm BITA recommendation = 300 mm)

I = load lengths

 $b_{10} = load width$ 

# **MAST AND CAPACITY INFORMATION**

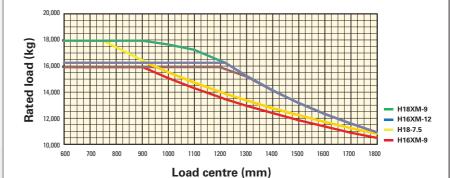
	Lift height h <sub>3</sub> (mm)	Lowered height h <sub>1</sub> (mm)	Free lift height h <sub>2</sub> (mm)	Extended height h <sub>4</sub> (mm)	Dual Function carriage with Side Shift and Fork positioner					
e NFL					H16XM-9 @900 mm LC	H16XM-12 @1200 mm LC	H18XM-7.5 @750 mm LC	H18XM-9 @900 mm LC		
Stage	3,884	3,680	0	5,622	16,000	16,000	18,000	18,000		
2-8	4,494	3,985	0	6,232	16,000	16,000	18,000	18,000		
	5,306	4,390	0	7,044	16,000	16,000	18,000	18,000		
	6,119 *	4,790	0	7,858	15,700	15,700	17,650	17,650		

# **POWERTRAINS**

1.1	Manufacturer (abbreviation)		H16-18XM-7.5-9-12				
1.2	Manufacturer's type designition		Diesel				
7.1	Engine manufacturer/type		Cummir	ns QSB 6.7			
7.2	Engine power according to ISO1585 (nominal)	kW	122 @ 2.300				
7.2.1	Engine power according to ISO1585 (maximum)		125 @ 2.100				
7.3	Rated speed	kW / min	2,300				
7.3.1	Torque (maximum)	Nm @ rpm	732 @ 1.500				
7.4	Number of cylinders/displacements	(-) / cm <sup>3</sup>	6	6,690			
7.5	Fuel consumtion according to VDI cycle	I/h	<u> </u>				
7.8	Alternator	A	120				
7.10	Battery voltage/nominal capacity	(V)/(Ah)	24	102			
8.1	Type of drive unit		Torque Converter				
8.2	Transmission manufacturer/type		ZF	3 WG 161			
8.6	Wheel drive/drive axle manufacturer/type		KESSLER	DL81-WB			
8.11	Service brake		Oil immersed disc				
8.12	Parking brake		dry disc on drive axle				

# **RATED CAPACITIES**

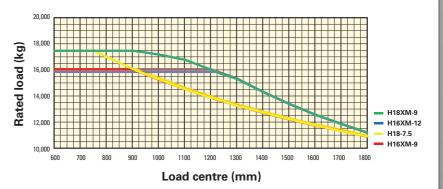




Load centre: Distance from front of forks to centre of gravity of load.

Rated load: Based on vertical mast.

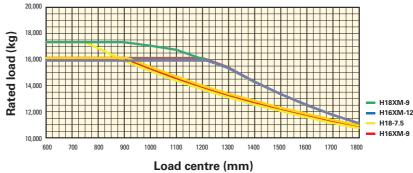
### Pin type Side Shift frame carriage



Load centre: Distance from front of forks to centre of gravity of load.

Rated load: Based on vertical mast.

## **Hook type Dual Function carriage with Side Shift** and Fork positioner for quick disconnect forks



Load centre: Distance from front of forks to centre of gravity of load.

Rated load: Based on vertical mast.

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. Inform your dealer of the nature and condition of the intended operating area when purchasing your Hyster Truck.

- + (DF-SS-FP carriage) QD. deduct 10 mm for fork section 90 x 250 (instead 100 x 200)
- Weights are based on the following specifications: Complete truck with cab, pneumatic tyres, mast, carriage and forks
- O Unladen with new tyres
- ¶ Bottom of forks
- +/- 3% tolerance depend on tyre inflated pressure / or tyre brand
- Full suspension seat in depressed position
- With 100 x 200 section deduct 10 mm if 90 x 250 section.
- ◆ Stacking aisle width is based on the VDI standard calculation as shown on illustration. The British Industrial Truck Association recommends the addition of 100 mm to the total clearance (dimension a) for extra operating margin at the rear of truck.
- ♦ Distance centre truck to centre of internal turning radius
- \* Travel speed laden/unladen limited at 25 km/h as factory default
- at 1.6 km/h.
- † 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
- Measured with low mount exhaust option
- Measured with high mount exhaust option
- Data available on request, as values are dependent on application

### MAST TABLE:

\* 6,200 mm mast equipped with 350 mm sideshift carriage

### 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 the mast tilt in either direction is kept to a minimum when loads are elevated.

Operators must be trained and must read. understand and follow the instructions contained in the Operating Manual.

All values are nominal values and they are subject to tolerances. For further information, please contact the manufacturer.

Hyster products are subject to change without notice. Lift trucks illustrated may feature optional equipment. Values may vary with alternative configurations.

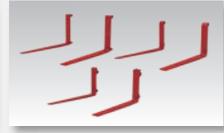
### C € Safety:

This truck conforms to the current EU

# FRONT END EQUIPMENT



Range of 2 stage NFL masts



Pin Type, Hook Type integral and Hook Type Quick Disconnect forks



2.540 mm wide Pin Type carriage



2.540 mm wide Pin Type carriage with independent Fork Positioner



2.540 mm wide Pin Type Side Shift frame carriage



2.540 mm wide Pin Type Side Shift frame carriage with independent Fork Positioner



2.540 mm wide Hook Type Dual Function carriage with Side Shift and Fork Positioner (FP can be as independent or simultaneously acting)



2.540 mm wide Hook Type Dual Function carriage with Side Shift and Fork Positioner for Quick Disconnect forks (FP can be as independent or simultaneously acting)

# STANDARD EQUIPMENT

- Cummins QSB 6.7 122 kW / max 125 kW @ 2.300–2.100 rpm Turbo Diesel Engine
  - Stage IV Compliant
- ECO-eLo / HiP performance modes
- Hibernate Idle
- Cooling fan with fan clutch
- ZF WG 161 3 speed Hydrodynamic Transmission
- 2-Stage NFL Mast with maximum fork height of 6119 mm
- 2.540 mm wide Side Shift and Fork Positioner carriage
- Oil-immersed Brakes
- SAUER-DANFOSS dual piston variable displacement pump 120 ccm (60 + 60 ccm)
- KESSLER DL81 PL478-NLB Drive axle with oil-immersed disc brake system
- 4-way hydraulic controls with Levers combination without clamping function
- Mast Tilt: 6° Forward / 10° Back
- Directional Control Lever
- Overhead Guard Featuring:
- Seat-Side Hydraulic Control
- Multifunction Display Panel
- Interior Wide Angle Mirrors
- -Telescoping & Tilting Steering Column
- Floor Ma

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- Isolated Mounting for Low Noise and Vibration
- Handrails for Operator Entry and Exit

- Tyres Drive and Steer
  - 12.00-20 20PR Trelleborg T-900 Bias Pneumatic tyres
- Steering Wheel with Spinner Knob
- Electric Horn
- Mechanical Suspension Vinyl Seat with integrated adjustable armrest and 2-point black seat belt
- Air Intake with Sy-Klone pre cleaner and Rain Cap
- Low mount exhaust
- 24 V Electrical System
- 120 Amp Alternator
- Manual Tilt Operator Compartment for Service Access
- Self-adjustable back up Alarm volume > 5dB(A) ambient
- Amber strobe light Ignition key and switch activated
- Light Kit 2:
- LED rear cluster with stop, reverse and direction light
- 2 x Halogen working lights mounted on mast
- 2 x Halogen drive lights, 2 direction / marker lights mounted on front fender
- 2 x Halogen working lights mounted rear of the cabin, direction and position light with hazard function
- Non-locking Fuel Cap
- Literature Package
- Operator's Manual
- Warranty
- 12 Months / 2,000 Hours Manufacturer's Warranty

# **OPTIONAL EQUIPMENT**

- 2-Stage NFL Masts with maximum fork heights up to 6119 mm
- 2-Stage FFL Masts with maximum fork heights up to 4300 mm (SPED)
- 3-Stage FFL Masts with maximum fork heights up to 7000 mm (SPED)
- Carriages for 2 Stage NFL, 2 Stage FFL and 3 stage
   FFL masts
  - 2.540 mm wide Pin Type carriage
  - 2.540 mm wide Pin Type carriage with independent Fork Positioner
  - 2.540 mm wide Pin Type Side Shift frame carriage
  - 2.540 mm wide Pin Type Side Shift frame carriage with independent fork positioner
- 2.540 mm wide Hook Type Dual Function carriage with Side Shift and Fork Positioner (FP can be as independent or simultaneously acting)
- 2.540 mm wide Hook Type Dual Function carriage with Side Shift and Fork Positioner for Quick Disconnect forks (FP can be as independent or simultaneously acting)
- 2.540 mm wide Hook Type Dual Function carriage with Side Shift and simultaneous Fork Positioner for Quick Disconnect forks and 2 auxiliary valves to control a hang on attachment with 2 hydraulic functions
- Up to 6-way hydraulic control functions to control via 4 levers and 2 switches
- Hydraulic Control Joystick with max 5-way function
- Mast Tilt:
- 15° Forward / 10° Back
- 10.5° Forward / 12° Back
- MONOTROL<sup>™</sup> Pedal
- Tyres Drive and Steer
- 12.00-R20 MICHELIN XZM radial
- 12.00-20 20PR HAULER Bias Pneumatic tyres
- Rear Mud Flaps
- Steer Wheel Nut Protection
- Enclosed Cab with or without Air Conditioning includes:
- Seat-Side Hydraulic Control Levers
- Multifunction Display Panel
- Interior Wide Angle Mirrors
- -Telescoping & Tilting Steering Column
- I-style Front Screen Wiper
- H-style double front Screen Wiper
- Floor Ma
- 24-12 V DC/DC Converter with 1 or 2 sockets
- -Top & Rear Wipers
- Heater
- Re-circulation Fan

- Enclosed Cab options
  - -Top and rear sun shades
  - H-style Front screen Wiper
  - Temperature controller
  - Air conditioner, manually controlled
  - Air conditioner, automatically controlled
  - High Performance Air conditioner, manually controlled
- High Performance Air conditioner, automatically controlled
- Reading light
- Trainer seat
- IT console for on-board computer
- Storage console
- H-style Front Screen Wiper
- Heated top window
- Engine start interlock
- Radio preparation, inclusive wire, two speakers and antenna
- Rain top for OHG
- Wire mesh protection guard on Top of cab
- External Mirror right and left
- 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
- Powered Tilt Operator Compartment
- Lockable Battery Disconnect Switch
- High mount exhaust
- Various Light Kits
- Hvdraulic Accumulator
- Lockable diesel fuel cap
- Lifting eye shackles
- Engine Block Heater (230V)
- Traction Speed Limiter
- Automatic Engine ShutdownHydraulic temperature protection
- Pressure compensated lowering
- Hyster Tracker Wireless Asset Management system

Other options available through

Special Products Engineering Department (SPED). Contact Hyster for details.

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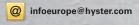


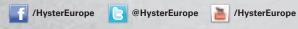
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