

# H18-20XD SERIES

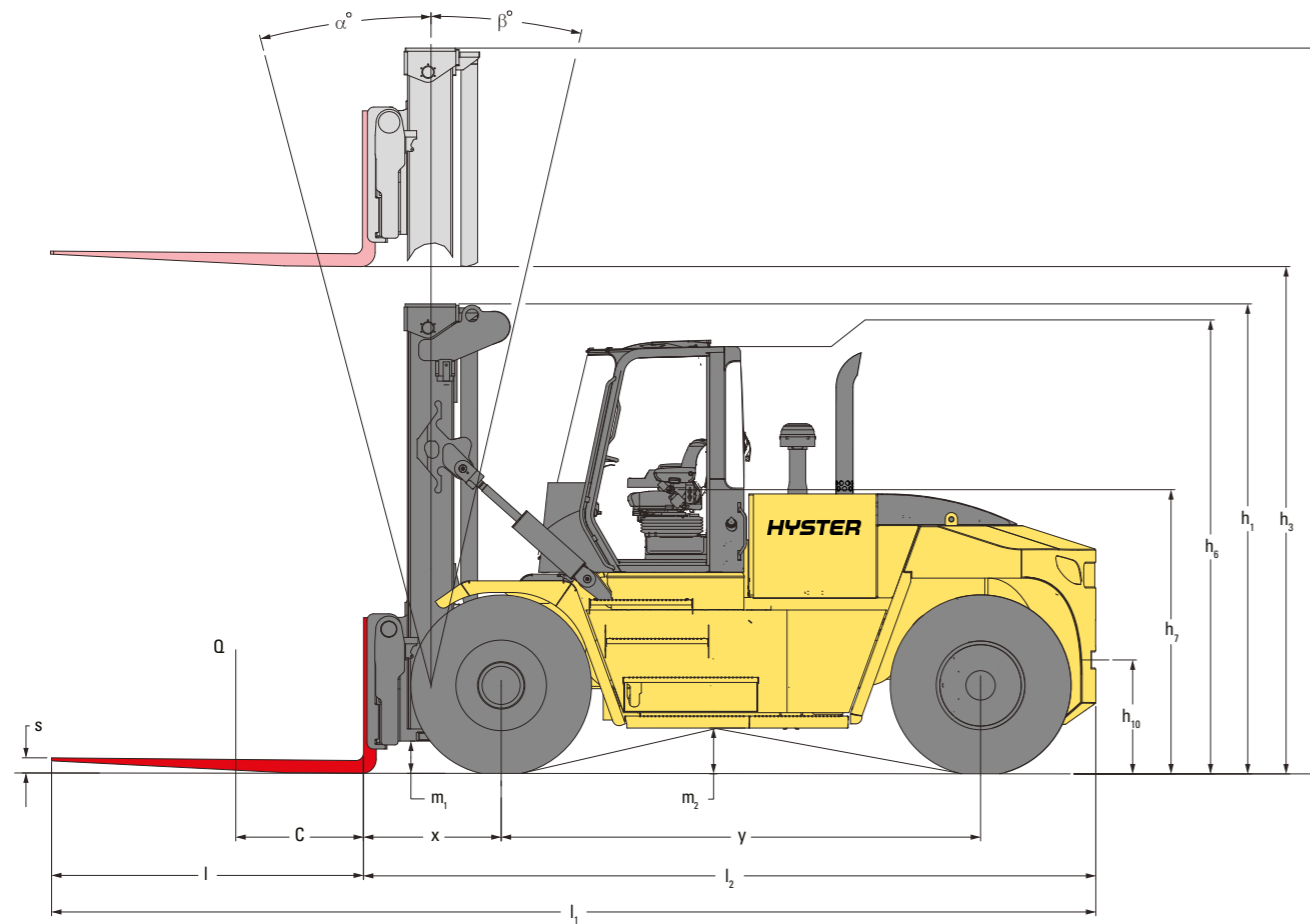
---



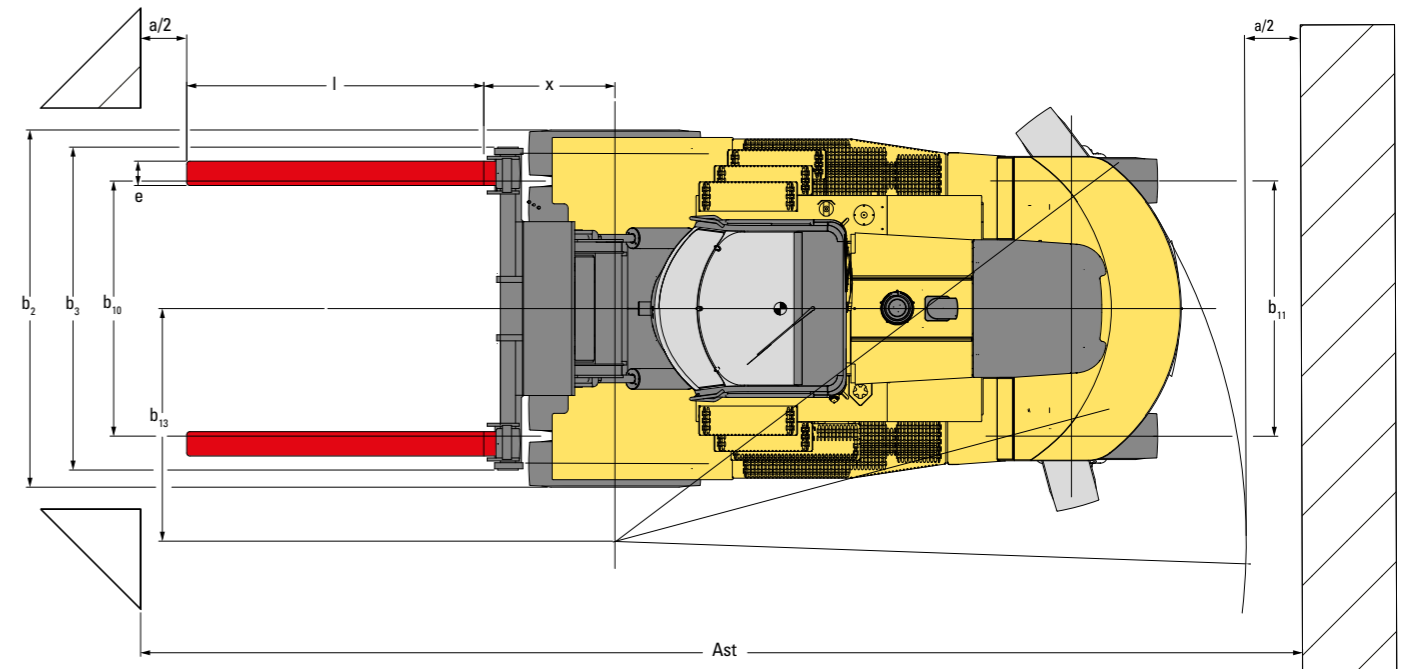
**HEAVY DUTY FORKLIFT**  
**PRODUCT TECHNICAL GUIDE**



[WWW.HYSTER.COM](http://WWW.HYSTER.COM)



- ☉ = Centre of gravity of unladen truck
- $A_{ST} = W_a + x + l_6 + a$  (if  $b_{12}/2 < b_{13}$ )
- $A_{ST} = W_a + ((l_6+x)^2 + (b_{12}/2-b_{13})^{2.5})^{0.5} + a$  (if  $b_{12}/2 > b_{13}$  and  $W_a > b_{13} \cdot b_{12}/2$ )
- $A_{ST} = b_{13} + b_{12}/2 ((l_6+x)^2 + (b_{12}/2-b_{13})^{2.5})^{0.5} + a$  (if  $b_{12}/2 > b_{13}$  and  $W_a < b_{13} \cdot b_{12}/2$ )
- $a$  = Minimum operating clearance = 10% of  $A_{ST}$   
(VDI standard = 200 mm BITA recommendation = 300 mm)
- $l_6$  = load lengths
- $b_{12}$  = load width



- ☉ = Centre of gravity of unladen truck
- $A_{ST} = W_a + x + l_6 + a$  (if  $b_{12}/2 < b_{13}$ )
- $A_{ST} = W_a + ((l_6+x)^2 + (b_{12}/2-b_{13})^{2.5})^{0.5} + a$  (if  $b_{12}/2 > b_{13}$  and  $W_a > b_{13} \cdot b_{12}/2$ )
- $A_{ST} = b_{13} + b_{12}/2 ((l_6+x)^2 + (b_{12}/2-b_{13})^{2.5})^{0.5} + a$  (if  $b_{12}/2 > b_{13}$  and  $W_a < b_{13} \cdot b_{12}/2$ )
- $a$  = Minimum operating clearance = 10% of  $A_{ST}$   
(VDI standard = 200 mm BITA recommendation = 300 mm)
- $l_6$  = load lengths
- $b_{12}$  = load width

# H18XDS9 / H18XD9 / H20XDS9 / H20XD9 SPECIFICATIONS

# MAST AND CAPACITY INFORMATION

GENERAL	HYSTER										
	H18XDS9	H18XD9	H20XDS9	H20XD9							
1-1	Manufacturer										
1-2	Model designation										
1-3	Powertrain / drivetrain										
1-4	Operator type										
1-5	Load capacity at load centre, nominal	Q	kg	18,000	20,000						
1-6	Load centre distance	c	mm	900							
1-8	Load distance (1)	x	mm	1,134	1,117						
1-9	Wheelbase	y	mm	3,500	3,750	3,500	3,750				
WEIGHT	2-1	Service weight									
	2-2	Axle loading with load, front / rear									
	2-3	Axle loading without load, front / rear									
WHEELS	3-1	Tyre type front/rear									
	3-2	Tyre size, front									
	3-3	Tyre size, rear									
	3-5	Number of tyres, front / rear ( X driven )									
	3-6	Tread, front	b <sub>10</sub>	mm	2,095						
	3-7	Tread, rear	b <sub>11</sub>	mm	2,108						
	DIMENSIONS	4-1	Mast tilt, forward / backward	α/β	deg	10° / 12°					
4-2		Height, mast lowered (2)	h <sub>1</sub>	mm	4,142	4,230					
4-3		Freelift	h <sub>2</sub>	mm	0						
4-4		Lift (3)	h <sub>3</sub>	mm	4,550						
4-5		Height, mast extended	h <sub>4</sub>	mm	6,417	6,505					
4-7		Height of overhead guard (open cab)	h <sub>6</sub>	mm	3,401						
4-7-1		Height of overhead guard (closed cab)	h <sub>6</sub>	mm	3,428						
4-7-2		Height of overhead guard (closed cab w/ airco)	h <sub>6</sub>	mm	3,428						
4-7-3		Height of overhead guard (closed cab w/ strobe lights)	h <sub>6</sub>	mm	3,525						
4-7-4		Height of overhead guard (closed cab w/ work lights)	h <sub>6</sub>	mm	3,577						
4-7-5		Height of overhead guard (closed cab w/ airco & strobe lights)	h <sub>6</sub>	mm	3,555						
4-8		Seat height to SIP (4)	h <sub>7</sub>	mm	2,204						
4-12		Coupling height	h <sub>10</sub>	mm	907						
4-19		Overall length	l <sub>1</sub>	mm	7,975	8,225	7,958	8,208			
4-20		Length to face of forks	l <sub>2</sub>	mm	5,535	5,785	5,518	5,768			
4-21		Overall width across drive tyres	b <sub>2</sub>	mm	2,923						
4-22		Fork dimensions ISO 2331	s/e/l	mm	100 x 200 x 2,440		100 x 250 x 2,440				
4-23		Carriage type	Dual Function								
4-24		Carriage width	b <sub>3</sub>	mm	2,672	2,940					
4-25		Width over forks (min / max)	b <sub>5</sub>	mm	998 / 2,443	1,047 / 2,762					
4-30	Sideshift @ width over forks	b / b <sub>5</sub>	mm	+/-361 / 1,721	+/-429 / 1,904						
4-31	Ground clearance, lowest point	m <sub>1</sub>	mm	299	270						
4-32	Ground clearance, center of wheelbase	m <sub>2</sub>	mm	374							
4-33	Load size	b x l	mm	1,830 / 1,830							
4-34-1-1	Aisle width (a=10%)	Ast	mm	8,688	9,035	8,669	9,017				
4-34-1-2	Aisle width (a=0)	Ast	mm	7,898	8,214	7,881	8,197				
4-34-1-3	Aisle width (a=200 mm)	Ast	mm	8,098	8,414	8,081	8,397				
4-33-2	Load size	b x l	mm	2400 / 2400							
4-34-2-1	Aisle width (a=10%)	Ast	mm	9,315	9,662	9,296	9,644				
4-34-2-2	Aisle width (a=0)	Ast	mm	8,468	8,784	8,451	8,767				
4-34-2-3	Aisle width (a=200 mm)	Ast	mm	8,668	8,984	8,651	8,967				
4-35	Outside turning radius	W <sub>a</sub>	mm	4,934	5,250	4,934	5,250				
4-36	Internal turning radius (6)	b <sub>13</sub>	mm	1,836	2,032	1,836	2,032				
PERFORMANCE	5-1	Travel speed, with / without load	km/h				25 / 25				
	5-2	Lifting speed, with / without load	m/s				0.30 / 0.33		0.45 / 0.50	0.25 / 0.28	0.38 / 0.42
	5-2-1	Lifting speed, with 70% load	m/s				0.32		0.47	0.27	0.40
	5-3	Lowering speed with / without load	m/s				0.50 / 0.50				
	5-5	Drawbar pull - 1.6 km/h (1 mph), with / without load	kN				162 / 165		161 / 164		
	5-5-1	Drawbar pull - max, with / without load	kN				200 / 203		199 / 203		
	5-7	Gradeability - 1.6 km/h (1 mph), with / without load (5)	%				39 / 33		39 / 34		35 / 32
5-7-1	Gradeability - max, with / without load (5)	%				50 / 33		51 / 34		44 / 32	46 / 34

(1) Centre of drive axle to front face of forks  
 (2) Unladen with new tyres  
 (3) Bottom of forks  
 (4) Full suspension seat in depressed position

(5) Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines.  
 (6) Distance centre truck to centre of internal turning radius.

All capacities are according to EN1551.

## H18XDS9 / H18XD9 RATED CAPACITY KG @ 900 MM LOAD CENTRE

2 STAGE NFL	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 Side Shift & Fork Positioning carriage without ZERO IN-TO-IN forklifting		
					Capacity @ 900 mm load centre (kg)	Mast tilt (forward/backward) (°)	Capacity @ 1,200 mm load centre (kg)
	3,750	3,692	0	5,517	18,000	10 / 12	16,000
	4,650	4,142	0	6,417	18,000	10 / 12	16,000
	5,400	4,517	0	7,167	18,000	10 / 12	16,000
	6,200	4,917	0	7,967	17,880	10 / 12	15,840
	6,700	5,167	0	8,467	17,700	10 / 12	15,640
	7,000	5,317	0	8,767	17,600	10 / 12	15,520

## H20XDS9 / H20XD9 RATED CAPACITY KG @ 900 MM LOAD CENTRE

2 STAGE NFL	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 Side Shift & Fork Positioning carriage without ZERO IN-TO-IN forklifting		
					Capacity @ 900 mm load centre (kg)	Mast tilt (forward/backward) (°)	Capacity @ 1,200 mm load centre (kg)
	3,750	3,780	0	5,605	20,000	10 / 12	18,000
	4,650	4,230	0	6,505	20,000	10 / 12	18,000
	5,400	4,605	0	7,255	20,000	10 / 12	18,000
	6,200	5,005	0	8,055	20,000	10 / 12	17,820
	6,700	5,255	0	8,555	19,940	10 / 7	17,620
	7,000	5,405	0	8,855	19,680	10 / 7	17,500

Carriage with ZERO IN-TO-IN forklifting not recommended in combination with lift heights above 6200 mm

## POWERTRAINS

GENERAL	1-1	Manufacturer				
	1-2	Model designation				
	1-3	Powertrain / drivetrain				
ENGINE	7-1	Engine manufacturer / model	Cummins / QSB 6.7 Stage IIIA	Mercedes-Benz / OM936 7.7 Stage V		
	7-2	Engine power - rated	kW	164@2000	180@1800	
	7-3-1	Engine torque @ rpm (1.min)	N-m	949@1400	1,000@1200-1600	
	7-4	Number of cylinders / displacement	# / cm <sup>3</sup>	6 / 6,690	6 / 7,698	
	7-6	Fuel consumption according to VDI cycle	l/h	On request		
	7-8	Alternator output	Amps	120	150	
	7-9	Electrical system voltage	V	24		
	7-10	Battery voltage, rated capacity	V / Ah	24 / 102		
	DRIVE	8-0	Drive control / transmission	Type	Powershift Transmission	
		8-1	Type of drive unit	Type	Torque Converter	
8-2		Transmission manufacturer / type	Type	ZF 5WG211		
8-2-1		Transmission speeds forward / backward	#	5 / 3		
8-4		Wheel drive / drive axle manufacturer / type	Type	AxleTech / PRC 1756W3H		
8-11		Service brake	Type	Oil immersed (wet) disc		
MISC	10-1	Operating pressure for attachments	MPa	22.5		
	10-2	Oil volume for attachments	l/m	100		
	10-3	Hydraulic tank capacity	l	203		
	10-4	Fuel tank capacity	l	303		
	10-4-1	DEF/AdBlue Tank capacity	l	N/A	38	
	10-5	Steering design	Type	Hydraulic Power Steering		
10-6	Number of steering rotations	#	4.4			

### 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. Inform your dealer of the nature and condition of the intended operating area when purchasing your Hyster® truck.

### NOTICE:

Care must be exercised when handling elevated loads. 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.



Safety: This truck conforms to the current EU, UKCA and ANSI requirements.

Hyster trucks are designed to meet ANSI B56.1 section 7.29 and ISO 6055 for overhead guard / operator cabin which are specifically developed for powered industrial trucks.

These standards specify the requirements and testing of overhead guards, operators' legs and feet protection, roll-over protection system (ROPS) and falling-object protection system (FOPS) for any type of high lift, rider operated, powered industrial truck.

Specification data is based on VDI 2198.

RANGE OF 2 STAGE NFL MASTS



PIN TYPE AND QUICK DISCONNECT HOOK TYPE FORKS



DUAL FUNCTION PIN TYPE CARRIAGE



DUAL FUNCTION HOOK TYPE CARRIAGE



DUAL FUNCTION HOOK TYPE WITH 2 EXTRA FUNCTIONS CARRIAGE



PERFORMANCE	STD	OPT
Mercedes-Benz OM936 7.7L Stage V Diesel Engine 180 kW @ 2200 rpm	Stage V	
Cummins QSB 6.7 Stage IIIA Diesel Engine 164 kW @ 2000 rpm		Stage IIIA
Heavy duty air intake	X	
Raised air intake pre-filter		X
Hydrodynamic 5-speed ZF WG211 transmission	X	
AxleTech Drive Axle PRC1756 W3H with wet disc brakes	X	
DRIVE	STD	OPT
Travel Speed Limiter - unconditional and customer adjustable - pre-set to 16km/hr		X
14.00 x 24-24 Pneumatic Steer and Drive	X	
14.00 x 24 Pneumatic Shaped Solids Steer and Drive		X
14.00 x 24 Michelin XZM Radial Steer and Drive		X
14.00 x 24 Trelleborg Radial Steer and Drive		X
Spare wheels and tyres		X
LIFT	STD	OPT
2-stage Non Free Lift mast	X	
Mast tilt - 10° Forward / 12° Back	X	
Mast tilt - 10° Forward / 10° Back		X
Mast tilt - 10° Forward / 6° Back		X
Mast tilt - 10° Forward / 7° Back		X
Mast tilt - 10° Forward / 9° Back		X
Mast tilt - 5° Forward / 5° Back		X
Mast Tilt Indicator - Mechanical		X
Hydraulic Accumulator		X
Pressure compensated lowering	X	
HANDLING	STD	OPT
2680mm Pin type dual function sideshift carriage with simultaneous and independent fork positioner (H18XD)		X
2680mm Hook type dual function sideshift carriage with simultaneous and independent fork positioner (H18XD)	X	
2940mm Pin type dual function sideshift carriage with simultaneous and independent fork positioner (H20XD)		X
2940mm Hook type dual function sideshift carriage with simultaneous and independent fork positioner (H20XD)	X	
2680mm Hook type sideshift carriage with individual fork positioner with 1 auxiliary function (H18XD)		X
2940mm Hook type sideshift carriage with individual fork positioner with 1 auxiliary function (H20XD)		X
1200mm Hook type quick disconnect coil ram		X
1800mm Hook type quick disconnect coil ram		X
200x100x2440 mm Hook type forks capacity 18.000kg @ 900mm LC	X	
200x100x2135 mm Pin type forks capacity 18.000kg @ 900mm LC		X
200x100x2440 mm Pin type forks capacity 18.000kg @ 900mm LC		X
250x100x2440 mm Hook type forks capacity 20.000kg @ 900mm LC	X	
200x100x1525 mm Pin type forks capacity 20.000kg @ 750mm LC		X
200x100x1830 mm Pin type forks capacity 20.000kg @ 900mm LC		X
250x100x2135 mm Pin type forks capacity 20.000kg @ 900mm LC		X
250x100x2440 mm Pin type forks capacity 20.000kg @ 900mm LC		X
ERGONOMICS	STD	OPT
Open operator compartment (without doors and screens)	X	
Enclosed operator cabin		X
Manual tilt operator compartment for service	X	
Powered tilt operator compartment for service		X
Isolated cabin mounting for low noise and vibration	X	
Operator presence system	X	
Mechanical suspension seat	X	
Air suspension seat		X
Deluxe air suspension seat		X
Low backrest seat	X	
High backrest seat		X
Additional armrest on left side		X
Cloth seat cover		X
Vinyl seat cover	X	
Seat heating		X
Seat ventilation		X
2-point high visibility seatbelt	X	
Lateral seat sliding mechanism		X
Floor mat	X	
Coat hook	X	
Front, top and rear wipers with individual controlled washers		X
"I"-pattern front wiper (Enclosed operator cabin)	X	
"H"-pattern front wiper (Enclosed operator cabin)		X
Top window with armoured glass (Enclosed operator cabin)	X	
Steel bars under armoured glass top window (Enclosed operator cabin)		X
Tinted operator compartment windows (all)		X
Tinted operator compartment top window		X
Plexiglass shield in front of front window		X
Wire mesh installed on top of operator compartment		X
Operator shield wire mesh		X
7" Integrated performance display	X	
Touchpoint™ mini levers hydraulic control integrated in control arm	X	
Joystick hydraulic control integrated in control arm		X

ERGONOMICS (continued)	STD	OPT
Steering wheel with spinner knob	X	
Directional control lever		X
Directional control on Mini-levers or Joystick	X	
Hyster Monotrol pedal directional control		X
Park brake - manual	X	
Park brake - automatic		X
Heater with adjustable speed fan (Enclosed operator cabin)	X	
Diesel fuelled cabin heater		X
Telescoping and tilting steering column	X	
USB outlet inside armrest	X	
24/12 DC converter with 2 sockets and 2 USB outlets		X
Automatic climate control		X
Reading light		X
Sun shades on top and rear		X
Sun visors front window		X
Trainer seat		X
Recirculation fan		X
Accessory mounting bar on cab front right pillar		X
Document holder on cab front right pillar		X
Heated top- and/or rear window		X
Radio preparation set-up (wiring, two speakers and antenna)		X
Bluetooth radio with 2 speakers and antenna		X
VISIBILITY	STD	OPT
Exterior mirrors mounted to cab		X
Interior wide angle mirrors	X	
Rear view camera system		X
Radar object detection system		X
Halogen work lights	X	
LED work lights		X
High Performance LED work lights		X
Two head lights mounted on front fenders		X
Mast mounted work lights		X
Four cabin mounted work lights		X
Two rearward work lights mounted on the cabin		X
LED stop/tail/brake lights		X
Turn signals, hazard and marker lights (LED)		X
OPERATION	STD	OPT
Air horn 112 dBA		X
Electric horn 105 dBA	X	
Audible alarm – reverse direction activated 82–102 dB(A), self-adjusting		X
Audible alarm – reverse direction white noise		X
Forward / reverse motion alarm		X
Blue LED spotlight – rear / front and rear		X
Seatbelt interlock for engine start		X
Tyre pressure monitoring system		X
Air-conditioning or automatic climate control off with open door		X
Automatic truck shutdown with timer		X
Lockable battery disconnect switch		X
Battery jump start connector (NATO plug)		X
Truck Start with key switch and start button	X	
Operator password (display) for truck start		X
Power distribution group with fuses	X	
Fuses partially replaced by electric circuit breakers		X
Non-lockable fuel cap	X	
Lockable fuel cap		X
Diesel fuel inlet strainer in filler neck		X
Hyster Tracker wireless asset management system	X	
Hyster Tracker wireless asset management - Access / Verification		X
Hyster Tracker wireless asset management - Monitoring		X
Auto greasing system for basic truck and outer mast		X
24 volt electrical system	X	
Steer wheel lug nut protection		X
Front mud flaps		X
Rear mud flaps		X
Lifting eyes - 2 front and 2 rear		X
APPEARANCE	STD	OPT
Hyster yellow paint base truck	X	
Special paint base truck		X
Operator compartment special paint (Completely only)		X
Hazard warning striping on counterweight		X
SUPPLEMENTAL	STD	OPT
Literature package	X	
Operator's manual	X	
CE certification*	X	
Warranty: 24 Months / 4,000 Hours Parts manufacturer's warranty	X	
Warranty: 12 Months / 2,000 Hours Parts manufacturer's warranty		X

\* CE Standard for Stage V and Optional for Stage IIIA. Other options available through Special Products Engineering Department (SPED). Contact Hyster for details.




**HYSTER EUROPE**  
Centennial House, Building 4.5, Frimley Business Park,  
Frimley, Surrey, GU16 7SG, United Kingdom

Visit us online at [www.hyster.com](http://www.hyster.com) or call us at **+44 (0) 1276 538500**.

HYSTER-YALE UK LIMITED trading as Hyster Europe.

Registered Address: Centennial House, Building 4.5, Frimley Business Park, Frimley, Surrey GU16 7SG, United Kingdom.

Registered in England and Wales. Company Registration Number: 02636775.

© HYSTER-YALE UK LIMITED. 2024, all rights reserved. Hyster and  are trademarks of Hyster-Yale Group, Inc.

Hyster products are subject to change without notice. Trucks may be shown with optional equipment.



10004925  
Safety: This truck conforms to the current  
EU and UK CA requirements