STRONG PARTNERS. TOUGH TRUCKS.

Hyster ReachStacker

RS 45-27 CH, RS 45-31 CH, RS 46-36 CH, RS 46-40 CH, RS 46-41L CH, RS 46-41S CH, RS 46-41LS CH Container Handlers

RS 45-24 IH, RS 45-28 IH, RS 46-33 IH, RS 46-37 IH, RS 46-38L IH, RS 46-38S IH, RS 46-38LS IH Intermodal Handlers

			HYSTER			HYSTER			HYSTER			HYSTER		
CHARACTERISTICS	1.1	Manufacturer												
	1.2	Model designation	RS 45-27 CH			RS 45-31 CH			RS 46-36 CH			RS 46-40 CH		
	1.3	Power: battery, diesel, LPG, electric mains	Diesel			Diesel			Diesel			Diesel		
	1.5	Load capacity first / second / third container row Q (kg)	45 000	27 000	13 000	45 000	31 000	15 500	46 000	36 000	19 000	46 000	40 000	22 000
		Load capacity first / second / third row, with Stabilizer applied (truck static) Q (kg)	N/A			N/A			N/A			N/A		
	1.6	Load centre first / second / third container row, from face of front tyres ¶ $c_1/c_2/c_3$ (mm)	1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315
	1.8	Load distance to face of front tyres / front of Stabilizer x (mm)	840 / N/A			840 / N/A			930 / N/A			930 / N/A		
	1.9	Wheelbase y (mm)	6 200			6 200			6 200			6 200		
WEIGHTS	2.1	Unladen weight kg	68 320			72 020			79 390			82 590		
	2.2	Axle loading with load, front / rear kg	99 769	13 551		99 519	17 501		101 780	22 610		102 950	25 640	
	2.3	Axle loading without load, front / rear kg	37 046	31 274		36 795	35 225		38 392	40 998		38 113	44 477	
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid, SE=pneumatic-shaped solid	L			L			L			L		
	3.2	Tyre size, front	18,00 x 25			18,00 x 25			18,00 x 33			18,00 x 33		
	3.3	Tyre size, rear	18,00 x 25			18,00 x 25			18,00 x 33			18,00 x 33		
	3.5	Number of wheels, front / rear (X = driven)	4X	2		4X	2		4X	2		4X	2	
	3.6	Track width, front (mm)	3 033			3 033			3 033			3 033		
	3.7	Track width, rear (mm)	3 020			3 020			3 020			3 020		
DIMENSIONS	4.1	Boom angle minimum / maximum degrees	0 / 59			0 / 59			0 / 59			0 / 59		
	4.2	Boom height, minimum h_1 (mm)	4 700			4 700			4 760			4 760		
	4.3	Minimum distance spreader from ground ■ h_2 (mm)	1 342			1 342			1 440			1 440		
	4.4	Maximum lift height under spreader, first / second container row ■ h_4 (mm)	15 260	13 850		15 260	13 850		15 370	13 960		15 370	13 960	
	4.5	Boom height, maximum h_6 (mm)	18 110			18 110			18 200			18 200		
	4.8	Seat height h_7 (mm)	2 555			2 555			2 645			2 645		
	4.19	Overall length l_1 (mm)	11 873			11 873			12 073			12 073		
	4.20	Length without boom l_2 (mm)	8 360			8 360			8 650			8 650		
	4.21	Overall width over front tyres b_2 (mm)	4 220			4 220			4 220			4 220		
	4.30	Sideshift movement, from centre to left / right b_8 (mm)	800	800		800	800		800	800		800	800	
	4.31	Ground clearance lowest point, without load m_1 (mm)	312			312			400			400		
	4.32	Ground clearance, centre of wheelbase m_2 (mm)	495			495			585			585		
	4.34	90° Stacking Aisle 20' / 40', spreader central above front axle, without operating clearance ◆ Ast (mm)	9 500	12 520		9 500	12 520		9 707	12 522		9 707	12 522	
		90° Stacking Aisle 20' / 40', without operating clearance ● Ast (mm)	12 053	14 171		12 053	14 171		12 345	14 259		12 345	14 259	
		90° Stacking Aisle 20' / 40', with 200 mm operating clearance ● Ast (mm)	12 253	14 371		12 253	14 371		12 545	14 459		12 545	14 459	
		90° Stacking Aisle 20' / 40', with 10% operating clearance acc. FEM TN01 ● Ast (mm)	13 258	15 588		13 258	15 588		13 580	15 685		13 580	15 685	
	4.35	Outer turning radius W_a (mm)	8 270			8 270			8 470			8 470		
PERFORMANCE	5.1	Travel speed with load / without load - with 224 kW engine km/h	19,9	23,1		19,9	23,1		20,4	25,3		18,7	22,4	
		Travel speed with load / without load - with optional 272 kW engine km/h	21,3	23,4		21,3	23,4		22,6	25,7		20,4	23,9	
	5.2	Lifting speed with load (35 ton) / without load, first row average - with 224 kW engine m/sec	0,25	0,48		0,25	0,48		0,25	0,48		0,25	0,48	
		Lifting speed with load (35 ton) / without load, first row average - with optional 272 kW m/sec	0,28	0,48		0,28	0,50		0,28	0,50		0,28	0,48	
	5.3	Lowering speed with / without load m/sec	0,46	0,45		0,46	0,45		0,46	0,45		0,46	0,45	
	5.6	Maximum drawbar pull with load kN	378			378			378			376		
	5.7	Gradeability with load, with 224 kW / optional 272 kW engine (1.6 km/h) %	22	26		22	26		22	26		19	22	
	5.8	Maximum gradeability with load (224 kW engine) %	34			33			32			29		
	5.10	Service brake	Oil immersed brakes			Oil immersed brakes			Oil immersed brakes			Oil immersed brakes		
ENGINE	7.1	Engine make and type	Cummins QSM11			Cummins QSM11			Cummins QSM11			Cummins QSM11		
	7.2	Engine power, in accordance with ISO1585, maximum @ 1800 rpm / nominal @ maximum 2100 rpm kW (hp)	224 (300) optional 272 (365)	216 (290) 242 (325)		224 (300) optional 272 (365)	216 (290) 242 (325)		224 (300) optional 272 (365)	216 (290) 242 (325)		224 (300) optional 272 (365)	216 (290) 242 (325)	
	7.3	Governed maximum engine speed rpm	2 100			2 100			2 100			2 100		
	7.4	Number of cylinders / displacement cm^3	6	10 800		6	10 800		6	10 800		6	10 800	
	7.5	Fuel consumption, average l/h	☎			☎			☎			☎		
OTHER	8.1	Drive control	4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32		
	8.2	Pressure for attachments bar	260			260			260			260		
	8.3	Oil flow for attachments l/min	70 or 110			70 or 110			70 or 110			70 or 110		
	8.4	Noise level LpAZ, inside cab, per EN12053 † dB (A)	71			71			71			71		
	8.4.1	Noise level LWAZ outside truck, per 200 dB (A)	109.6			109.6			109.6			109.6		
	8.5	Towing coupling type	-			-			-			-		

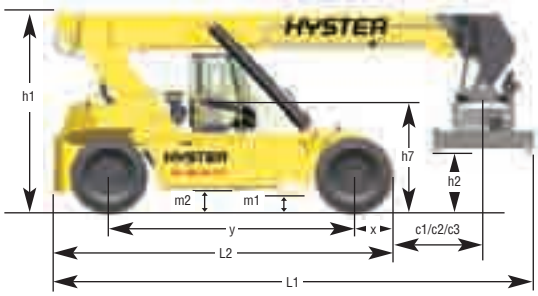
Specification data is based on VDI 2198

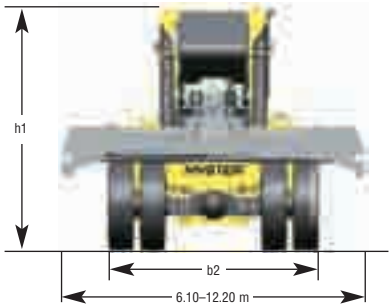
NOTE: Specifications are affected by the condition of the vehicle and how it is equipped, as well as the nature and condition of the operating area. If these specifications are critical, the proposed application should be discussed with your dealer.

† Gradeability figures (lines 5.7 & 5.8) are provided for comparison of tractive performance, but are not intended to endorse the operation of the vehicle on the stated inclines. Follow instructions in the operating manual regarding operation on inclines.

HYSTER			HYSTER			HYSTER				
RS 46-41L CH			RS 46-41S CH			RS 46-41LS CH			1.1	CHARACTERISTICS
Diesel			Diesel			Diesel			1.2	
46 000	41 000	26 000	46 000	40 000	22 000	46 000	41 000	26 000	1.3	
N/A			46 000	41 000	26 000	46 000	41 000	30 000	1.5	
1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315	1.6	
930 / N/A			930		1030	930		1030	1.8	
6 700			6 200			6 700			1.9	
87 130			84 600			89 130			2.1	WEIGHTS
103 982		29 148	105 239		25 361	106 204		28 926	2.2	
38 793		48 337	40 402		44 198	41 014		48 116	2.3	
L			L			L			3.1	WHEELS & TYRES
18,00 x 33			18,00 x 33			18,00 x 33			3.2	
18,00 x 33			18,00 x 33			18,00 x 33			3.3	
4X		2	4X		2	4X		2	3.5	
3 033			3 033			3 033			3.6	
3 020			3 020			3 020			3.7	
0 / 59			0 / 59			0 / 59			4.1	DIMENSIONS
4 760			4 760			4 760			4.2	
1 440			1 440			1 440			4.3	
15 370		13 960	15 370		13 960	15 370		13 960	4.4	
18 200			18 200			18 200			4.5	
2 645			2 645			2 645			4.8	
12 573			12 073			12 573			4.19	
9 150			8 750			9 250			4.20	
4 220			4 220			4 220			4.21	
800		800	800		800	800		800	4.30	
400			250			250			4.31	
585			585			585			4.32	
10 520		12 553	9 707		12 522	10 520		12 553	4.34	
13 085		14 420	12 345		14 259	13 085		14 420		
13 285		14 620	12 545		14 459	13 285		14 620		
14 394		15 862	13 580		15 685	14 394		15 862		
9 173			8 470			9 173			4.35	
18,7		22,3	18,7		22,4	18,7		22,3	5.1	PERFORMANCE
20,4		23,8	20,4		23,9	20,4		23,8		
0,25		0,48	0,25		0,48	0,25		0,48	5.2	
0,28		0,50	0,28		0,50	0,28		0,50		
0,46		0,45	0,46		0,45	0,46		0,45	5.3	
374			376			374			5.6	
19		22	19		22	19		22	5.7	
29			29			29			5.8	
Oil immersed brakes			Oil immersed brakes			Oil immersed brakes			5.10	
Cummins QSM11			Cummins QSM11			Cummins QSM11			7.1	ENGINE
224 (300) optional 272 (365)		216 (290) 242 (325)	224 (300) optional 272 (365)		216 (290) 242 (325)	224 (300) optional 272 (365)		216 (290) 242 (325)	7.2	
2 100			2 100			2 100			7.3	
6		10 800	6		10 800	6		10 800	7.4	
☎			☎			☎			7.5	
4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			8.1	OTHER
260			260			260			8.2	
70 or 110			70 or 110			70 or 110			8.3	
71			71			71			8.4	
109.6			109.6			109.6			8.4.1	
-			-			-			8.5	

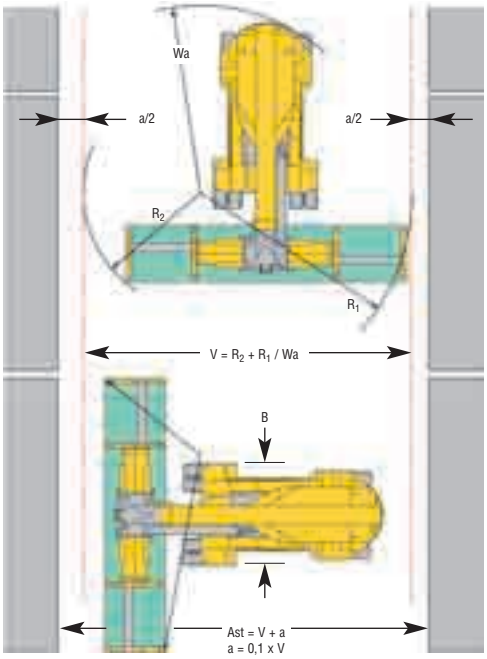
Illustration shows CH model





90 Degrees Stacking Aisle

(According to FEM TN01)



Ast = Practical 90 degrees Stacking aisle
= V (theoretical stacking aisle) + a (total operating clearance)
Where V = R2 + the larger of R1 or Wa
a = 200 mm (100 mm each side acc. VDI) See line 4.34
a = 10% of V (acc. FEM TN01 recommendation).

■ For CH models only: With optional P(owered) P(ile) S(lope) function: Deduct 310mm from dimension h4.

◆ Spreader at 8.0m high

● This data is with the container carried 500mm in front of the wheels

☎ Consult your Hyster lift truck dealer

All capacities are according to prEN1459

All specifications and capacities are valid for trucks equipped with a Hyster container handling spreader for handling ISO containers.

CE **Safety:** This truck conforms to the current EU requirements.

Operators must be trained and adhere to the instructions contained in the Operating Manual.

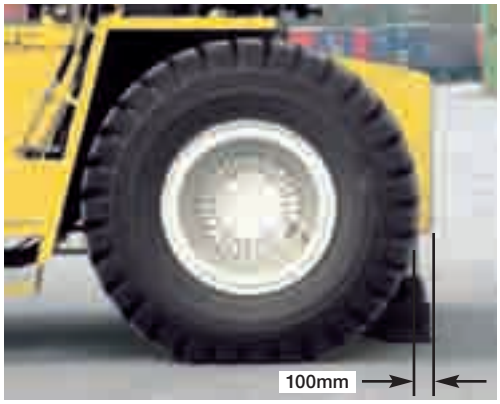
			HYSTER			HYSTER			HYSTER			HYSTER		
CHARACTERISTICS	1.1	Manufacturer												
	1.2	Model designation	RS 45-24 IH			RS 45-28 IH			RS 46-33 IH			RS 46-37 IH		
	1.3	Power: battery, diesel, LPG, electric mains	Diesel			Diesel			Diesel			Diesel		
	1.5	Load capacity first / second / third container row Q (kg)	45 000	24 000	11 000	45 000	28 000	12 000	46 000	33 000	16 000	46 000	37 000	20 000
		Load capacity first / second / third row, with Stabilizer applied (truck static) Q (kg)	N/A			N/A			N/A			N/A		
	1.6	Load centre first / second / third container row, from face of front tyres ¶ $c_1/c_2/c_3$ (mm)	1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315
	1.8	Load distance to face of front tyres / front of Stabilizer x (mm)	840 / N/A			840 / N/A			930 / N/A			930 / N/A		
	1.9	Wheelbase y (mm)	6 200			6 200			6 200			6 200		
WEIGHTS	2.1	Unladen weight kg	72 220			75 920			83 290			86 490		
	2.2	Axle loading with load, front / rear kg	105 244	11 976		105 120	15 800		108 761	20 529		108 482	24 008	
	2.3	Axle loading without load, front / rear kg	42 793	29 427		42 542	33 378		44 198	39 092		43 919	42 571	
WHEELS & TYRES	3.1	Tyres: L=pneumatic, V=solid, SE=pneumatic-shaped solid	L			L			L			L		
	3.2	Tyre size, front	18,00 x 25			18,00 x 25			18,00 x 33			18,00 x 33		
	3.3	Tyre size, rear	18,00 x 25			18,00 x 25			18,00 x 33			18,00 x 33		
	3.5	Number of wheels, front / rear (X = driven)	4X	2		4X	2		4X	2		4X	2	
	3.6	Track width, front (mm)	3 033			3 033			3 033			3 033		
	3.7	Track width, rear (mm)	3 020			3 020			3 020			3 020		
DIMENSIONS	4.1	Boom angle minimum / maximum degrees	0 / 59			0 / 59			0 / 59			0 / 59		
	4.2	Boom height, minimum h_1 (mm)	4 700			4 700			4 760			4 760		
	4.3	Minimum distance spreader from ground ■ h_2 (mm)	882			882			981			981		
	4.4	Maximum lift height under spreader, first / second container row ■ h_2 (mm)	14 780	13 375		14 780	13 375		14 880	13 375		14 880	13 375	
	4.5	Boom height, maximum h_4 (mm)	18 110			18 110			18 200			18 200		
	4.8	Seat height h_6 (mm)	2 555			2 555			2 645			2 645		
	4.19	Overall length h_7 (mm)	11 873			11 873			12 073			12 073		
	4.20	Length without boom l_1 (mm)	8 360			8 360			8 650			8 650		
	4.21	Overall width over front tyres l_2 (mm)	4 220			4 220			4 220			4 220		
	4.30	Sideshift movement, from centre to left / right b_2 (mm)	800	800		800	800		800	800		800	800	
	4.31	Ground clearance lowest point, without load m_1 (mm)	312			312			400			400		
	4.32	Ground clearance, centre of wheelbase m_2 (mm)	495			495			585			585		
	4.34	90° Stacking Aisle 20' / 40', spreader central above front axle, without operating clearance ◆ Ast (mm)	9 500	12 520		9 500	12 520		9 707	12 522		9 707	12 522	
		90° Stacking Aisle 20' / 40', without operating clearance ● Ast (mm)	12 053	14 171		12 053	14 171		12 345	14 259		12 345	14 259	
		90° Stacking Aisle 20' / 40', with 200 mm operating clearance ● Ast (mm)	12 253	14 371		12 253	14 371		12 545	14 459		12 545	14 459	
		90° Stacking Aisle 20' / 40', with 10% operating clearance acc. FEM TN01 ● Ast (mm)	13 258	15 588		13 258	15 588		13 580	15 685		13 580	15 685	
	4.35	Outer turning radius W_a (mm)	8 270			8 270			8 470			8 470		
PERFORMANCE	5.1	Travel speed with load / without load - with 224 kW engine km/h	19,9	23,1		19,9	23,1		20,4	25,3		18,6	22,3	
		Travel speed with load / without load - with optional 272 kW engine km/h	21,3	23,4		21,3	23,4		22,6	25,7		20,3	23,0	
	5.2	Lifting speed with load (35 ton) / without load, first row average - with 224 kW engine m/sec	0,24	0,47		0,24	0,47		0,24	0,47		0,24	0,47	
		Lifting speed with load (35 ton) / without load, first row average - with optional 272 kW m/sec	0,27	0,47		0,27	0,47		0,27	0,47		0,27	0,47	
	5.3	Lowering speed with / without load m/sec	0,46	0,45		0,46	0,45		0,46	0,45		0,46	0,45	
	5.6	Maximum drawbar pull with load kN	378			378			378			376		
	5.7	Gradeability with load, with 224 kW / optional 272 kW engine (1.6 km/h) %	22	26		22	26		22	26		19	22	
	5.8	Maximum gradeability with load (224 kW engine) %	33			32			31			29		
	5.10	Service brake	Oil immersed brakes			Oil immersed brakes			Oil immersed brakes			Oil immersed brakes		
ENGINE	7.1	Engine make and type	Cummins QSM11			Cummins QSM11			Cummins QSM11			Cummins QSM11		
	7.2	Engine power, in accordance with ISO1585, maximum @ 1800 rpm / nominal @ maximum 2100 rpm kW (hp)	224 (300) optional 272 (365)	216 (290) 242 (325)		224 (300) optional 272 (365)	216 (290) 242 (325)		224 (300) optional 272 (365)	216 (290) 242 (325)		224 (300) optional 272 (365)	216 (290) 242 (325)	
	7.3	Governed maximum engine speed rpm	2 100			2 100			2 100			2 100		
	7.4	Number of cylinders / displacement cm^3	6	10 800		6	10 800		6	10 800		6	10 800	
	7.5	Fuel consumption, average l/h	☎			☎			☎			☎		
OTHER	8.1	Drive control	4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32		
	8.2	Pressure for attachments bar	260			260			260			260		
	8.3	Oil flow for attachments l/min	70 or 110			70 or 110			70 or 110			70 or 110		
	8.4	Noise level LpAZ, inside cab, per EN12053 † dB (A)	71			71			71			71		
	8.4.1	Noise level LWAZ outside truck, per 200 dB (A)	109,6			109,6			109,6			109,6		
	8.5	Towing coupling type	-			-			-			-		

Specification data is based on VDI 2198

NOTE: 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.

† Gradeability figures (lines 5.7 & 5.8) are provided for comparison of tractive performance, but are not intended to endorse the operation of the vehicle on the stated inclines. Follow instructions in the operating manual regarding operation on inclines.

HYSTER			HYSTER			HYSTER				
									1.1	CHARACTERISTICS
RS 46-38L IH			RS 46-38S IH			RS 46-38LS IH			1.2	
Diesel			Diesel			Diesel			1.3	
46 000	38 000	23 000	46 000	38 000	20 000	46 000	38 000	23 000	1.5	
N/A			46 000	38 000	24 000	46 000	38 000	27 000		
1 865	3 815	6 315	1 865	3 815	6 315	1 865	3 815	6 315	1.6	
930 / N/A			930		1030	930		1030	1.8	
6 700			6 200			6 700			1.9	
91 030			88 500			93 030			2.1	WEIGHTS
109 250		27 780	110 770		23 739	111 472		27 558	2.2	
44 061		46 969	46 208		42 292	46 282		46 748	2.3	
L			L			L			3.1	WHEELS & TYRES
18,00 x 33			18,00 x 33			18,00 x 33			3.2	
18,00 x 33			18,00 x 33			18,00 x 33			3.3	
4X		2	4X		2	4X		2	3.5	
3 033			3 033			3 033			3.6	
3 020			3 020			3 020			3.7	
0 / 59			0 / 59			0 / 59			4.1	DIMENSIONS
4 760			4 760			4 760			4.2	
981			981			981			4.3	
14 880		13 375	14 880		13 375	14 880		13 375	4.4	
18 200			18 200			18 200			4.5	
2 645			2 645			2 645			4.8	
12 573			12 073			12 573			4.19	
9 150			8 750			9 250			4.20	
4 220			4 220			4 220			4.21	
800		800	800		800	800		800	4.30	
400			250			250			4.31	
585			585			585			4.32	
10 520		12 553	9 707		12 522	10 520		12 553	4.34	
13 085		14 420	12 345		14 259	13 085		14 420		
13 285		14 620	12 545		14 459	13 285		14 620		
14 394		15 862	13 580		15 685	14 394		15 862		
9 173			8 470			9 173			4.35	
18,6		22,3	18,6		22,3	18,6		22,3	5.1	PERFORMANCE
20,3		23,0	20,3		23,0	20,3		23,0		
0,24		0,47	0,24		0,47	0,24		0,47	5.2	
0,27		0,47	0,27		0,47	0,27		0,47		
0,46		0,45	0,46		0,45	0,46		0,45	5.3	
376			376			376			5.6	
18		21	19		22	18		21	5.7	
28			29			28			5.8	
Oil immersed brakes			Oil immersed brakes			Oil immersed brakes			5.10	
Cummins QSM11			Cummins QSM11			Cummins QSM11			7.1	ENGINE
224 (300) optional 272 (365)		216 (290) 242 (325)	224 (300) optional 272 (365)		216 (290) 242 (325)	224 (300) optional 272 (365)		216 (290) 242 (325)	7.2	
2 100			2 100			2 100			7.3	
6		10 800	6		10 800	6		10 800	7.4	
☎			☎			☎			7.5	
4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			4-speed autoshift SOH TE27 optional SOH TE32			8.1	OTHER
260			260			260			8.2	
70 or 110			70 or 110			70 or 110			8.3	
71			71			71			8.4	
109,6			109,6			109,6			8.4.1	
-			-			-			8.5	



■ For CH models only: With optional P(owered) P(ile) S(lope) function: Deduct 310mm from dimension h4.

◆ Spreader at 8.0m high

● This data is with the container carried 500mm in front of the wheels

☎ Consult your Hyster lift truck dealer

All capacities are according to prEN1459

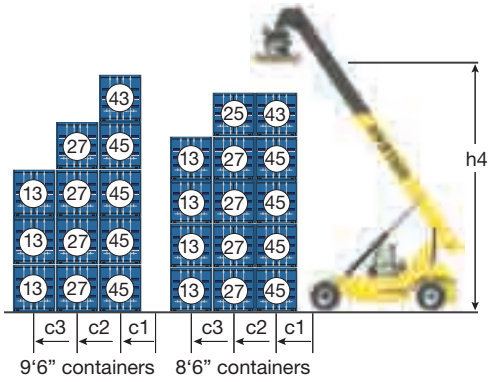
All specifications and capacities are valid for trucks equipped with a Hyster container handling spreader for handling ISO containers.

CE **Safety:** This truck conforms to the current EU requirements.

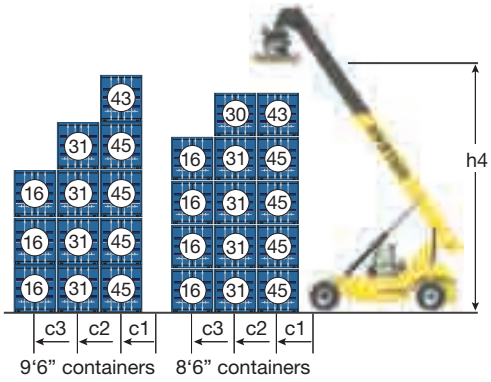
Operators must be trained and adhere to the instructions contained in the Operating Manual.

Rated Capacities and Stacking Heights – Container Handlers

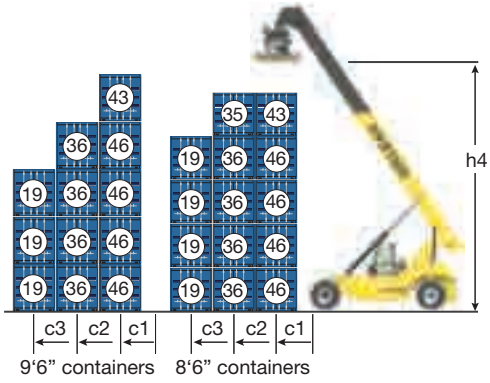
RS 45–27 CH Container Spreader



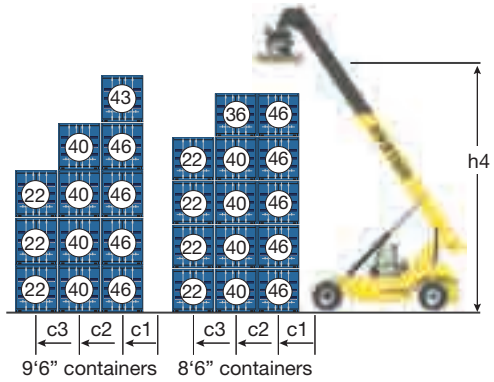
RS 45–31 CH Container Spreader



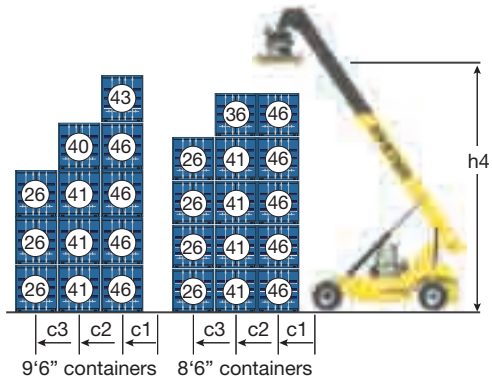
RS 46–36 CH Container Spreader



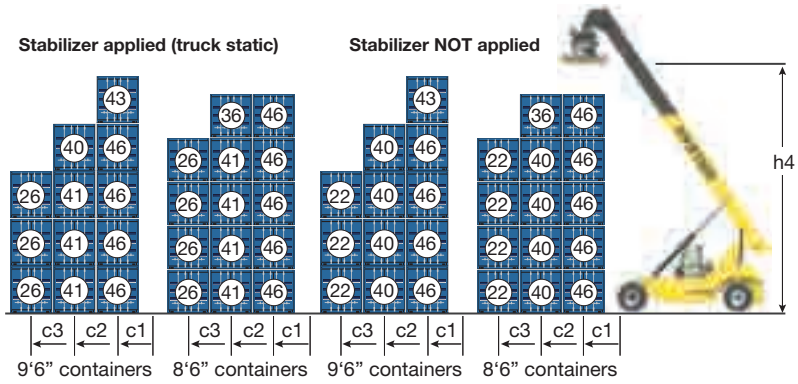
RS 46–40 CH Container Spreader



RS 46–41L CH Container Spreader

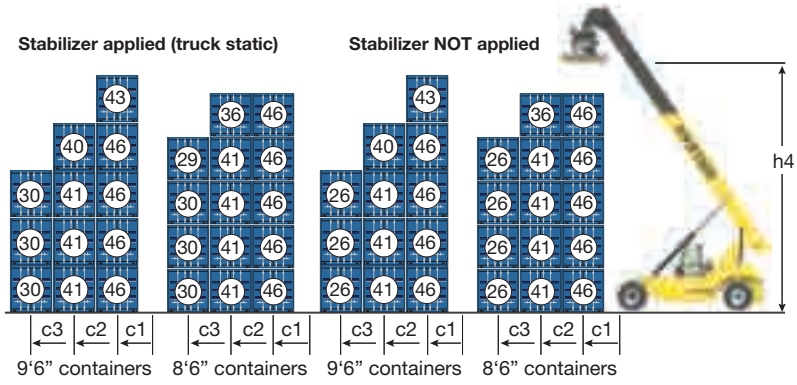


RS 46–41S CH Container Spreader



Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyres, **deduct 100mm** for load centres taken from the **front face of the Stabilizer**.

RS 46–41LS CH Container Spreader

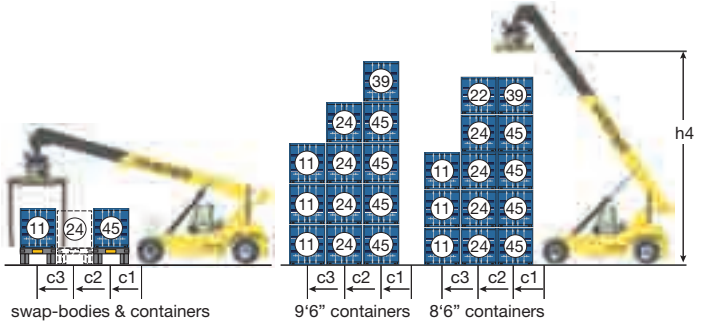


Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyres, **deduct 100mm** for load centres taken from the **front face of the Stabilizer**.

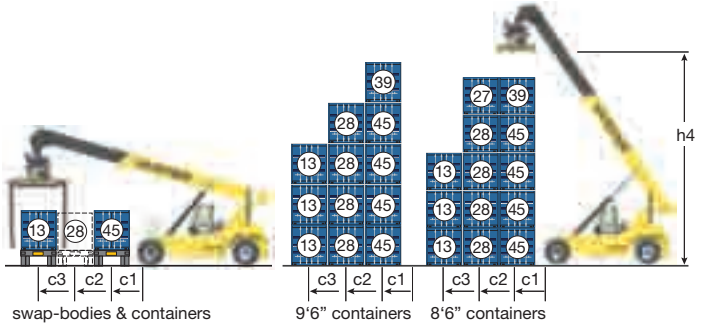
NOTE: Care must be exercised when handling elevated loads. When the load is elevated, truck stability is reduced.

Rated Capacities and Stacking Heights – Intermodal Handlers

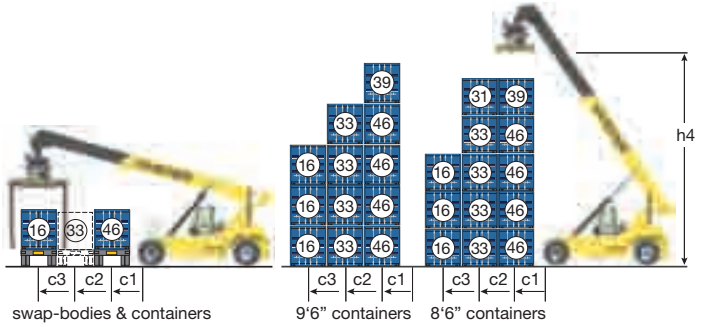
RS45–24IH Intermodal Spreader



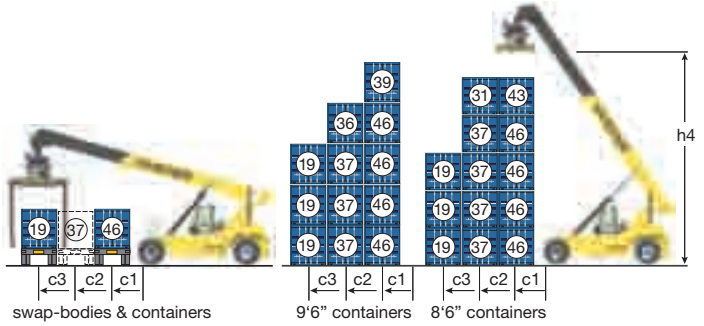
RS 45–28 IH Intermodal Spreader



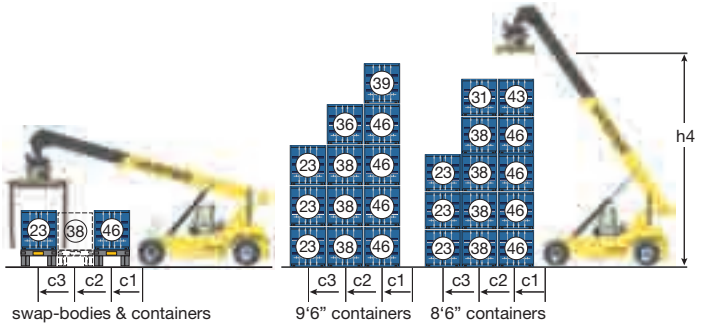
RS 46–33 IH Intermodal Spreader



RS 46–37 IH Intermodal Spreader

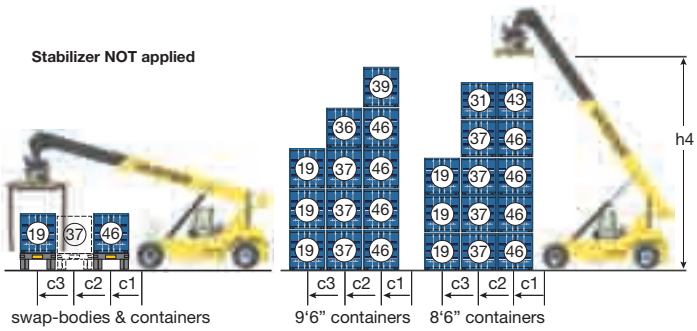


RS 46–38L IH Intermodal Spreader

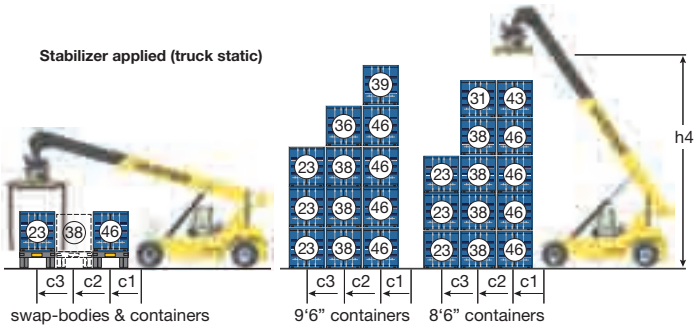


RS 46–38S IH Intermodal Spreader

Stabilizer NOT applied



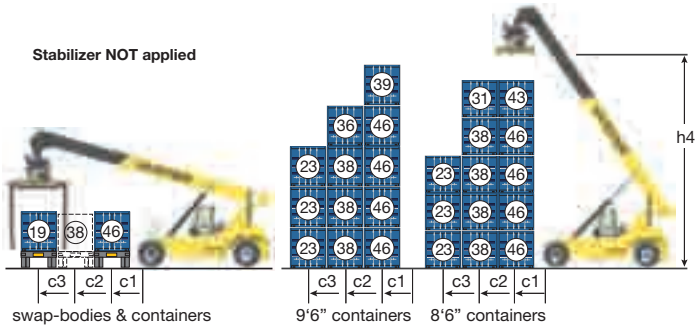
Stabilizer applied (truck static)



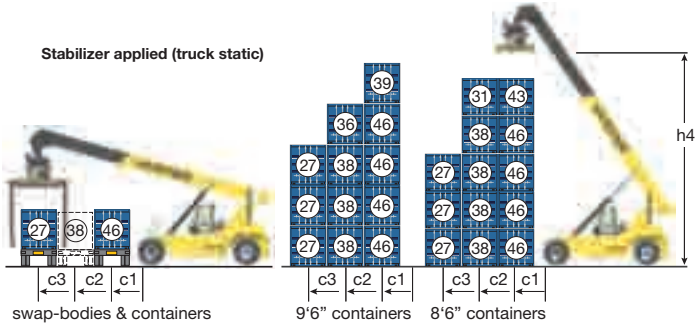
Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyres, **deduct 100mm** for load centres taken from the **front face of the Stabilizer**.

RS 46–38LS IH Intermodal Spreader

Stabilizer NOT applied



Stabilizer applied (truck static)



Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyres, **deduct 100mm** for load centres taken from the **front face of the Stabilizer**.

NOTE: Care must be exercised when handling elevated loads. When the load is elevated, truck stability is reduced.

ReachStacker Development Story

Hyster began building ReachStackers in 1995 and since that time, hundreds have been delivered to customers worldwide.

The latest generation of trucks, the RS45-46 range consists of 14 models, starting with ‘first row’ Container Stackers through to ‘second-rail’ Intermodal Handlers.

This latest generation, in addition to adopting the best features of the previous generation, shares many of the same proven components and systems as featured on the ‘first row’ Container Stacker Range, the H40.00-50.00XM-16CH and the Heavy Fork Lift Trucks series H36.00-48.00XM(S)-12.

First, Second and Third Row ReachStackers

The Hyster RS range of **ReachStackers** has been designed to achieve maximum space utilisation on container terminals, thanks to outstanding manoeuvrability, superior handling speeds and unrestricted stacking capabilities, in an all-in-one package:

- **Compact** machine with a class-leading wheelbase of only 5.9 m, and a turning radius of just 8.12 m.
- **Fast lifting:** The practical average 4-mode speed is a fantastic 41 cm /sec., and this with the standard 224 kW (300 Hp) engine.
- **Capacities** of up to **41 tonnes** in the 2nd row, for the CH model, ensuring that there are no container weight limitations when handling containers in the 2nd row.
- **Ability** to stack containers **five-high** (9'6" in the 1st row and 8'6" in the second row).
- **Excellent visibility** all-round, thanks to a (standard) Powered Sliding Cab, widely spaced rear boom supports, and a sloping rear counterweight.
- **Proven concept**, using the key structures (frame, boom and spreader) of the original Hyster ReachStacker, together with the proven driveline, hydraulic and control components of the H40.00-50.00XM- 16CH First Row Container Stackers.

All-inclusive specification:

- **Air conditioning** is standard.
- The **Powered Sliding Cab** is standard.
- The standard electronic **Load Moment Protection** system features a load weight indicator display.
- **Twistlock indicator lights**, on the spreader and in the cab, are standard equipment.
- **PDC** (Powered Damping Cylinders) forward/backward 'tilt' control of the spreader is standard.
- **Tropical cooling** package, for working in ambient temperatures of up to 50°C is standard.
- **Engine and transmission** protection system is standard.
- **Automatic** transmission **shifting** is standard, featuring the APC200 soft-shift system, with **protective lock-out** on forward-reverse shifting.

A Framework of Experience

The frame and boom structures used in the new RS series are based on the proven design employed in the original Hyster ReachStacker and the H40.00-50.00XM-16CH.

- The frame is immensely strong and the widely spaced rear supports give rigidity and excellent rearward visibility.
- The pivot points for the boom are positioned right at the back of the frame and therefore minimise boom 'overhang', resulting in a very compact machine and ensuring that the excellent rearward visibility is maintained, even when the boom is raised.
- The two-stage boom is rectangular in shape, is welded both inside and outside, and telescopes on self-lubricating self-aligning non-metallic bearings.

Power & Performance

Fastest

The hydraulic system is highly efficient, and features 'Power on Demand' and 'Two-Speed Lift' functions.

- The result is lifting speeds that are class leading: The practical 4-mode average lifting speed is a fantastic 0.41 m/sec. with the standard 224 kW (300 Hp) engine.

  Average of four lifting modes:
  Unladen lift speed = 0.48 m/sec.
  Laden lift speed = 0.25 m/sec (with 70% load = 32 ton).
  Unladen lowering speed = 0.45 m/sec.
  Laden lowering speed = 0.46 m/sec.

Clean Power Choice

The Hyster **ReachStackers** are equipped with the **Cummins QSM 11 industrial** 6-cylinder in-line turbo-charged diesel engine, with charge-air cooling.

The Cummins QSM 11 diesel engine features:

- 10.8 litre capacity.
- **Low exhaust emissions** which conform to the EC Tier 3 standard for NRMM (Non-Road Mobile Machinery).
- **Engine protection** system, acting on low oil pressure and high coolant temperature. The system initially derates the engine power and finally shuts down the engine and features an override function for emergency situations.
- **Tropical cooling:** Additional cooling of engine and hydraulic system, for working in ambient temperatures of up to a maximum of up to 50°C.
- **Fuel tank** 725 litre (660 litre useable) - more than ample for a three-shift operation.

Standard Power Package:

- Performance of maximum **224 kW (300 Hp)** at only 1800 rpm, offering extra durability for long periods of peak power operation. Smooth torque of **1424 Nm** at 1000-1400 rpm provides excellent acceleration and lugging power, together with low fuel consumption.
- This 224 kW (300HP) engine is combined with the S.O.H. (Spicer Off-Highway) TE27 4-speed autoshift transmission.
- The wide AxleTech PRC7534 front drive axle offers excellent sideways stability.
- Long-term durability thanks to the strongest end-reduction shafts and gears available.
- Oil-immersed brakes on the drive axle feature oil cooling for durability and are virtually maintenance free.

Optional Power Package:

› Performance of maximum **272 kW (365 Hp)** at 1800 rpm is available as an option for the heaviest duty applications. Maximum torque is a mighty **1674 Nm** at 1000-1400 rpm.

› Combined with the S.O.H. TE32 4-speed autoshift transmission and an AxleTech PRC7534 Heavy Duty drive axle (with reinforced spindles).

This “more power package” results in noticeably quicker acceleration and agility, plus 12% higher laden lift speed, and up to 2 km/h faster laden travel speed.

Autoshift

Both available S.O.H. transmissions are fitted with the industry leading ‘APC200’ automatic ‘soft-shift’ gear change system. This autoshift system features:

› Load-sensitive shifting action.

› A ‘soft-shift’ characteristic (through electronic ‘throttle-back’ function during gear change). In addition to providing improved driver comfort, the system eliminates shifting-shocks on the driveline.

› An ‘on the move’ forward-reverse shifting lock-out function protects the transmission and driveline against overloading, during abrupt direction changes.

› Back-up (reverse driving) alarm.

Tropical Cooling

› A tropical cooling system is standard and offers additional cooling of the engine and hydraulic systems, for working in ambient temperatures of up to maximum 50˚C.

Protection Systems

› Engine protection system, acting on low oil pressure and high coolant temperature, is standard equipment.

› Transmission protection system, acting on high oil temperature, is also standard equipment.

These systems initially derate the engine power and finally shut down the engine, and feature an override function for emergency situations.

Hyster Steer Axle

› Double-acting, single steering cylinder with non-adjustable tie rods. It is renowned for its long lifespan and low maintenance requirements.

› Steer wheel nut protection (recessed studs) is also standard.

Exceptional All-round Visibility

The RS series features the Hyster “Vista” cab, which has been designed to be the industry-leading ergonomic operator environment, and focuses on optimising driver comfort and visibility for maximum productivity, through:

- Large windows, fitted with tinted safety glass, offer excellent all-round visibility. This is further enhanced in poor weather conditions by a fresh air inlet, sliding windows, an effective heater and defroster and wipers (with intermittent wipe function) and washers on front, top and rear screens.
- Air-conditioning is integrated into the heating and ventilation system, with manual temperature control. Sunshade screens are fitted on the top and rear windows.
- Joystick for intuitive control of boom lift and telescope, and spreader functions: Sideshift, Rotation, Telescope 20’-40’. Twistlock unlocking (locking is automatic) is operated separately by a toggle switch.
- Full-suspension fully adjustable driver’s seat with a high backrest, seat belt, “park brake off” warning buzzer, operator presence system, map reading light and extra air circulation fan.
- Adjustable steering column, power-assisted steering and lever controls, push-button parking brake and conveniently positioned instruments.
- Responsive, fully hydraulic brakes and an automotive style pedal layout further contribute to driver confidence and comfort.
- Wide-view rear view mirrors inside cab, outside rear view mirrors on front fenders.
- Low noise level of 74 dB(A) driver’s ear BITA equivalent.

A Powered Sliding Cab is Standard on the New ReachStacker

- The cab can be moved to various positions for optimum visibility in variable operating conditions and/or to accommodate drivers preferences.
- The Powered Sliding Cab is operated by a switch inside the cab - to save time this can done while driving and/or lifting.

Illustration shows CH model with optional Full-sliding cab

Powered Sliding Cab

A powered **Partial-sliding** cab is standard on CH models:

- When the cab is located at the rear of the machine, it offers the most comfortable viewing angle when stacking containers 4-5 high, and this is often preferred by drivers, due to its position behind the lift cylinders.
- The partial forward (0.9 m max.) cab position offers an unobstructed view of 40’ (and 45’!) containers, from low (lorry bed) height up to higher lifting heights.

Cab entry / exit is only possible in the rearward position.

A Powered **Full-sliding** cab is standard on IH models (optional on CH models):

- The cab can slide from the rear of the machine over 2.6 m to a fully forward position. This is essential for IH models when handling swap-bodies or trailers, so that the driver can see the grapple feet at ground level.
- Some drivers also prefer the fully forward position for low height container handling.
- Access is easy, thanks to convenient staircases plus platforms with handrails, and wide opening doors.
- For the version with powered full-sliding cab, extra steps and handrails are provided, on the left-hand front fender, to facilitate for cab entry / exit in the forward position. A second set of rear view mirrors, positioned on the front fenders is included as standard.
- The truck is equipped with a comprehensive set of road and work lights and two orange flashing beacons. For further details see under **Lights**.

Rear Visibility

Rearward visibility has been greatly enhanced thanks to:

- The widely spaced rear boom supports, and rear-sloping design of the counterweight.
- The size of the counterweight extending out at the rear of the machine has been kept to a minimum. This has been achieved by using a solid piece of metal for the rear section of the box-type frame, so keeping much of the required ballast inside the machine.
- The unique ‘boomerang’ shaped frame, with the pivot point of the boom at the furthest point to the rear.

Ease of Servicing

- The hydraulic oil tank features a gauge for oil level and temperature as well as magnetic drain plugs.
- The cab is powered (Partial or Full-sliding) in combination with quickly removable (lightweight aluminium) floor plate sections, which provides truly excellent access for service work.

Hydraulic & Electrical Systems

Hydraulics

- **Pumps:** Two variable-displacement piston pumps with a total performance of maximum 585 l/min.
- Hyster two-speed system with regenerative function results in high lift speeds.
- Leak-free ORFS (O-ring) type fittings are used throughout the whole machine.
- **Filtration:** Full-flow return line filter with 10 micron cartridge on the main system, plus in-line pressure filter with 20 micron on power-assist and support systems.
- Large oil cooler for the hydraulic system, suitable for working in ambient temperatures of up to 50°C
- **Hydraulic oil tank:** 600 litre useable volume, with level and temperature gauge and magnetic drain plugs.
- Emergency lowering device, to lower the spreader when the engine is not running.
- Centralised pressure check points with a digital pressure indicator on brake system accumulator.
- Damping system on the longitudinal (forwards / backwards) oscillating movement of the spreader, providing an effective ‘controlled sway’ of the spreader, under varying load weight and operating conditions.

Electrics

- 24 Volt system, 70 A alternator, battery master switch.
- ‘CANbus’ diagnostic connection in the cab for engine, transmission, instruments, and load-moment protection system.

Spreader Specifications

Container Handling Spreader

The Hyster ‘CH’ type Telescopic Container spreader, for handling 20’-40’ ISO containers, features:

- A uniquely widely spaced boom head, to provide strong support for the Spreader.
- A rotator with two hydraulic oil-immersed brakes and one hydraulic motor.
- Ample rotation angle of +195 / -105 degrees.
- A very smooth and precise rotation function, thanks to the unique Hyster two-speed system with a soft-start function. In addition the rotation function is cushioned by a hydraulic accumulator.
- Powered Damping Cylinders (PDC) function, to ‘tilt’ the spreader forwards and backwards, over +/- 5 degrees, with limited power.
  - Operated by a control knob on the joystick.
  - Facilitates, for example, the easier positioning of the spreader onto containers, which are located on sideways (not front to back) sloping trailers. (For IH models, it is also used to facilitate easier engagement onto the bottom-lift points of trailers / swap-bodies).
- Free (non-powered) sideways articulation of +/- 2.5 degrees, to facilitate easy handling of containers on / off sloping trailers.
- 1600 mm total sideshift movement, 800 mm to each side.
- Pendular floating ISO twistlocks.
- Twistlocks turn automatically to locked position, unlocking is done manually.

- Twistlock indicator lights positioned under the boom, and also inside the cab on the ceiling.
- Twistlock lock-out device, to help prevent;
  - Picking up of a container on less than 4 corners
  - Unlocking when carrying a container.
- Lift interrupt system on partially turned twistlocks, so lifting is possible only when twistlocks are either in the fully locked or in the unlocked position*.
- 4 Lifting eyes on the 4 corners of the end-beams of the telescopic container spreader, for lifting general cargo (of minimum 6 m length). Note: Full capacity use (40 tonne) is only allowed in 20' (6 m) or in the 40' (12 m) end-positions of the spreader, not in any in-between positions.

  * With optional extra 30' automatic stop: Also suitable for general cargo lifted at 9 m length position.

Intermodal Spreader

Equipped as the 'CH' spreader, with, in addition:

- PPS: 'Powered Pile Slope' (hydraulically powered sideways articulation of +/- 6.0 degrees), operated by 4 cylinders, to facilitate the precise positioning of the bottom-lift grapple feet onto (sloping) swap-bodies / trailers.
- Free (non-powered) sideways articulation is +/- 1.5 degrees, to facilitate easy handling of containers on / off sloping trailers.
- 4 integrally mounted 'bottom-lift' legs (at a fixed lateral distance of 4875 mm centre to centre), to handle swap-bodies / trailers (European types with bottom-lift points according to ISO 1496/1).
- When handling containers, all 4 legs can be hydraulically rotated (swivelled) upwards. The 'block-stacking' feature (standard equipment) allows the bottom-lift legs to fold-up within the contours of a (2.44 m wide) ISO container.

Other Features

Brakes

Service Brake: Multiple oil immersed (wet) discs on the drive axle, with cooling system.

Parking Brake: Dry disc brake on the drive axle input shaft, spring applied and hydraulically released.

Electronic Load Moment Control System

- With automatic shut-off beyond the rated load-moment.
- Automatic shut-off function on boom lowering and telescope-out).
- Warning lights in the dash board: Green, Orange (at 90% load-moment), Red (at 100% rated load moment)
- Digital display unit, showing actual load, max. rated load, and load distance plus load height.

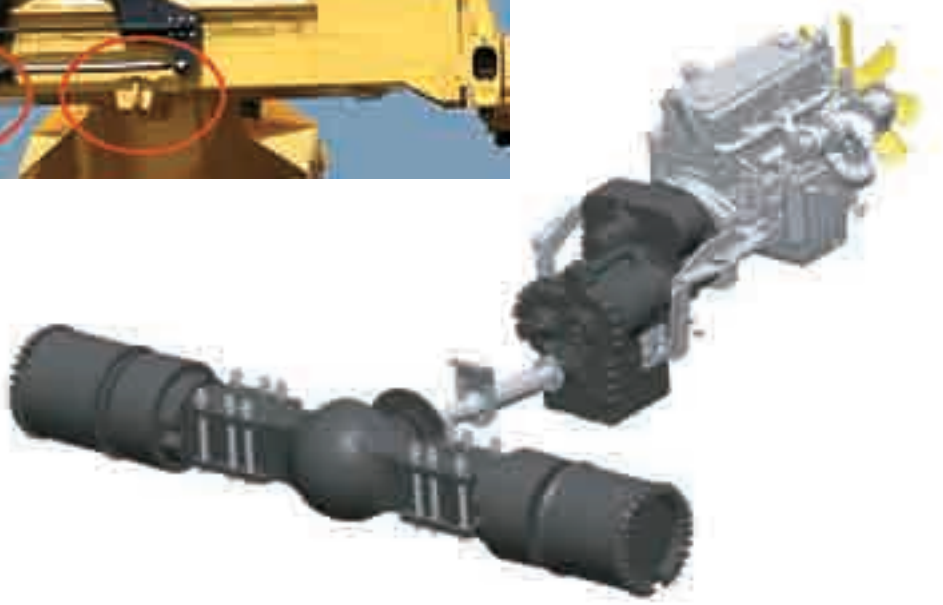
Lights

8 front work lights (4 on the boom and 2 on the front fenders and 2 rear, all halogen type) 2 front marker lights, 4 direction indicators, 2 tail/stop lights, 2 orange flashing beacons (one each side of boom).

2 work lights on the container spreader, directed towards the engagement points (4 work lights with intermodal spreader).

Electrics

24 V, 70 A alternator, 184 Ah battery with master switch.



Optional Equipment

- **Extra power package:** 272 kW / 365 Hp engine and TE32 transmission and PRC7534HD drive axle, in place of the standard 224 kW / 300 Hp engine, TE27 transmission and PRC7534 drive axle.
- **Special tyres:** Bias or diagonal type, with tread or as ‘slicks’.
- **Automatic greasing system:** On the truck, the boom and the CH or IH spreader.
- **Special RAL colour(s)** paint.
- **Spare wheel** (complete tyre and rim).
- **Full-sliding cab** on a CH model.

On the Container or Intermodal Spreader:

- **30’ Automatic stop**, is required when handling (a) 30’ container(s). Consists of: Spreader reinforcements and electrically operated mechanical stop locks at 30’ spreader position.
- **Extra lifting eyes (4 x)** on the underside of the container spreader. Placed at 1335 mm (width) distance, for lifting compact general cargo (e.g. coils, blocks, machinery). Capacity 40 tonnes maximum, 10 tonnes per lifting eye. Includes reinforcements of the spreader structure.
  Note: The 4 lifting eyes at the four corners of the spreader (near the twistlocks), are standard equipment.
- PPS (Powered Pile Slope) function on the CH spreader (standard on IH). Please consult your dealer for application advice of the PPS function.

In-Cab and Operator Convenience Items:

- **Large multi-function colour display** (screen size 86 x 115 mm) on the Load Moment Control system, with extra functions: Engine rpm, travel speed, engine temperature.
- **Air suspended seat**, instead of mechanically suspended seat.
- **Trainer seat** (small extra seat cushion)
- **Support stand** with mounting plate, to fit computer terminal or communications equipment, in right-front area of the cab. (Restricts access via the right-hand cab door).
- **Converter:** 24 Volt DC to 12 Volt DC, to use 12 V accessories.
- **H.I.D.** (‘High Intensity Discharge’ Xenon lights) **work lights**, (4 x on the boom and 1 x on the rear of the truck), instead of standard Halogen lights.
  Note: Only suitable for (non-public) on-terminal use, as these very bright lights may cause inconvenience for other operators / personnel.
- **Lights** on the staircase and in the engine compartment.

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 materials 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 materials handling needs so you can focus on the success of your business today and in the future.

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