

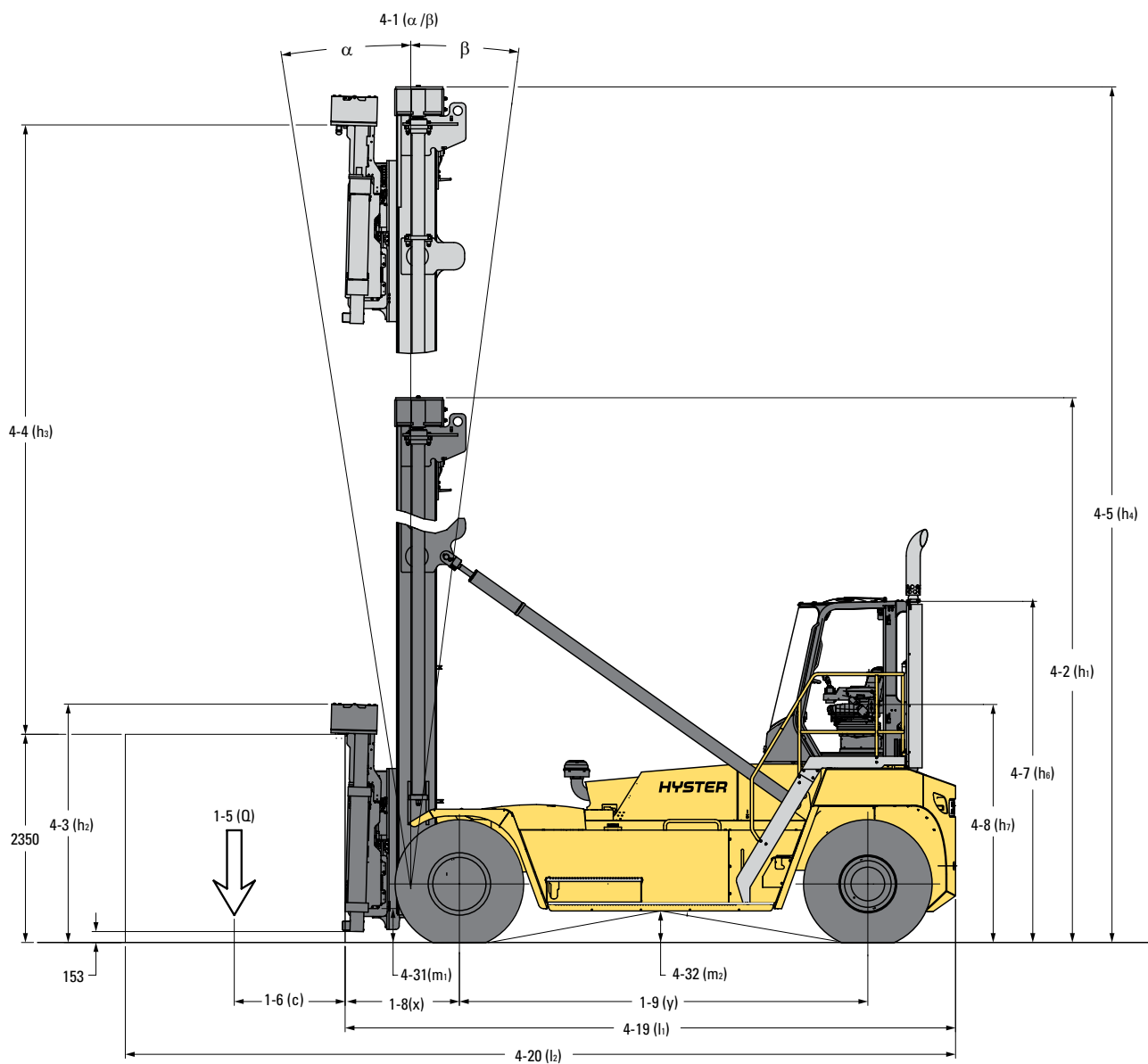


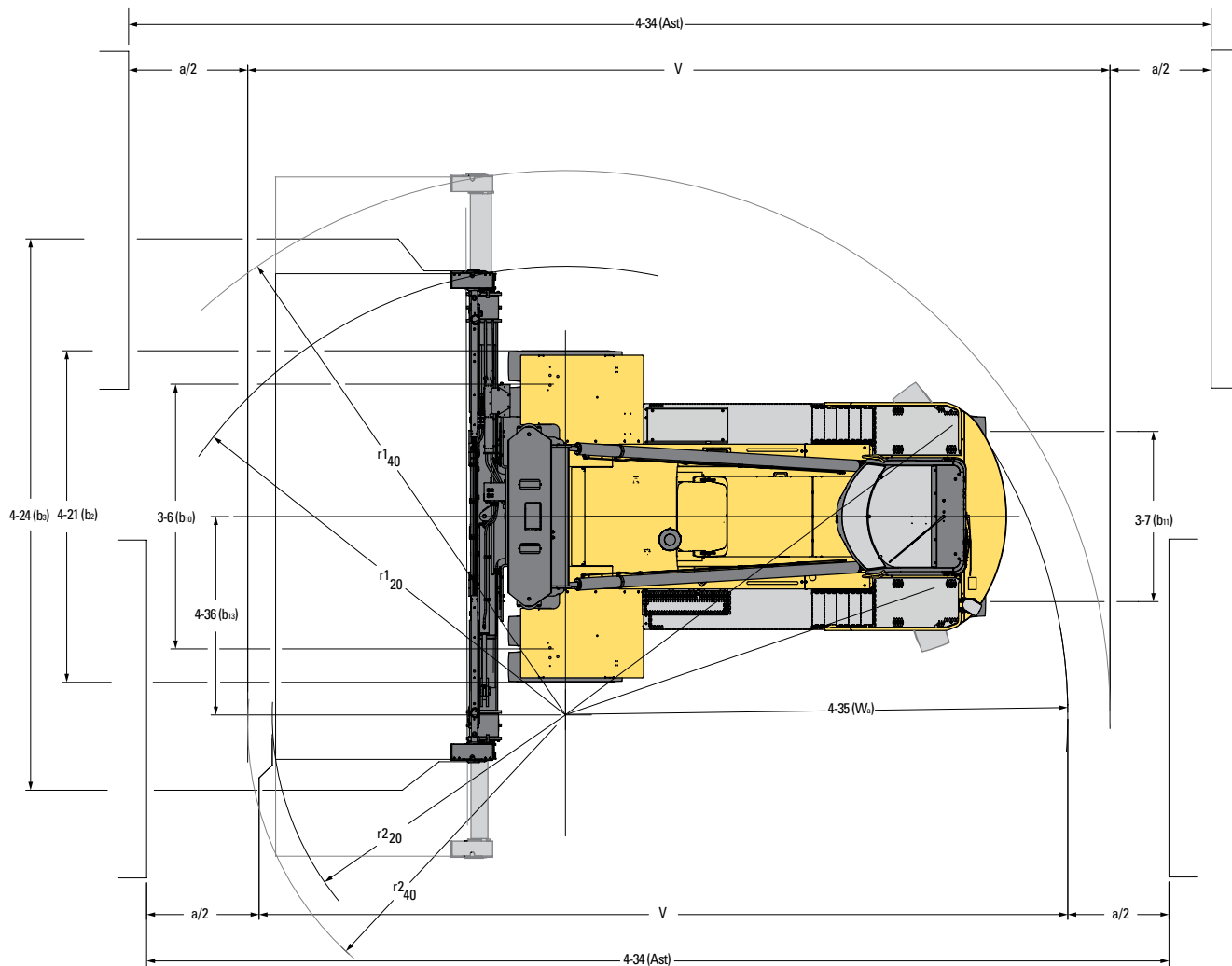
**STRONG PARTNERS.
TOUGH TRUCKS.™**

H180-200HD EC6-8 H200-230HD ECD7-9 SERIES TECHNICAL GUIDE

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DIMENSIONS





- r_1 = radius of swing of container rear corner
- r_2 = radius of swing of container front corner
- W_s = outside turning radius of the truck
- a = total operating clearance:
 - = 200 mm (100 mm each side acc. VDI) see VDI line 4-34-3 and 4-34-4
- V = (theoretical) 90° stacking aisle width, no intrusive stacking:
- $V = r_2 + \text{the larger of } r_1 \text{ or } W_s$
- Ast = (practical) 90° stacking aisle width, no intrusive stacking and with clearance:
- $Ast = V + a$



H180HD-EC6 / H180HD-EC7 / H200HD-EC7 SPECIFICATIONS

GENERAL	1-1	Manufacturer				HYSTER				HYSTER				HYSTER					
	1-2	Model designation				H180HD-EC6				H180HD-EC7				H200HD-EC7					
	1-3	Powertrain / drivetrain				Diesel				Diesel				Diesel					
	1-4	Operator type				Seated				Seated				Seated					
	1-5	Load capacity at load center, nominal (1)	Q	lbs	kg	18,000		8,165		18,000		8,165		20,000		9,072			
	1-5	Load capacity at load center, max lift (1,2)	Q	lbs	kg	18,000		8,165		18,000		8,165		20,000		9,072			
	1-6	Load center distance	c ₁	in	mm	48		1,220		48		1,220		48		1,220			
	1-8	Load distance	x	in	mm	53		1,357		53		1,357		53		1,357			
	1-9	Wheelbase	y	in	mm	177		4,500		177		4,500		177		4,500			
	1-10-1	Stacking height at first row (number x container height)		#	#	6 x 8' 6"				7 x 8' 6"				7 x 8' 6"					
1-10-2	Stacking height at first row (number x container height)		#	#	5 x 9' 6"				6 x 9' 6"				6 x 9' 6"						
WT.	2-1	Service weight		lbs	kg	78,392		35,558		81,377		36,912		85,755		38,898			
	2-2	Axle loading with load, front / rear		lbs	kg	78,873	35,776	17,520	7,947	82,135	37,256	17,242	7,821	84,938	38,527	20,820	9,444		
	2-3	Axle loading without load, front / rear		lbs	kg	50,563	22,935	27,829	12,623	53,828	24,416	27,551	12,497	53,482	24,259	32,273	14,639		
	3-1	Tire type				Pneumatic				Pneumatic				Pneumatic					
	3-2	Tire size, front				14.00-24 24PR				14.00-24 24PR				14.00-24 24PR					
	3-3	Tire size, rear				14.00-24 24PR				14.00-24 24PR				14.00-24 24PR					
	3-5	Wheels, number front / rear (x = driven wheels)				x4 / 2				x4 / 2				x4 / 2					
WHEELS	3-6	Tread, front	b ₁₀	in	mm	129		3,282		129		3,282		129		3,282			
	3-7	Tread, rear	b ₁₁	in	mm	83		2,108		83		2,108		83		2,108			
	4-1	Mast tilt, forward / backward	α/β	deg	deg	4 / 3				4 / 3				4 / 3					
	4-2	Height, mast lowered	h ₁	in	mm	374		9,495		425		10,795		425		10,795			
	4-3	Free lift	h ₂	in	mm	0		0		0		0		0		0			
	4-4	Lift	h ₃	in	mm	545		13,850		648		16,450		648		16,450			
	4-4-1	Lift height, minimum (3)	h _{3.1.1}	in	mm	91		2,318		91		2,318		91		2,318			
DIMENSIONS	4-4-2	Lift height, maximum (3)	h _{3.1.2}	in	mm	637		16,168		739		18,768		739		18,768			
	4-5	Height, mast extended	h ₄	in	mm	646		16,420		749		19,020		749		19,020			
	4-7	Height of cabin (with strobe light) (4)	h ₆	in	mm	157		3,976		157		3,976		157		3,976			
	4-8	Seat height to SIP (5)	h ₇	in	mm	105		2,676		105		2,676		105		2,676			
	4-19	Overall length	l ₁	in	mm	365		9,262		365		9,262		365		9,262			
	4-20	Length to face of load	l ₂	in	mm	269		6,824		269		6,824		269		6,824			
	4-21	Overall width	b ₂	in	mm	162		4,110		162		4,110		162		4,110			
	4-24	Spreader width, retracted/extended	b ₃	in	mm	240	6,084	481	12,218	240	6,084	481	12,218	240	6,084	481	12,218		
	4-31	Ground clearance, lowest point	m ₁	in	mm	9		236		9		236		9		236			
	4-32	Ground clearance, center or wheelbase	m ₂	in	mm	15		383		15		383		15		383			
	4-34-3	Aisle width with 20' Container REDUCED / FULL stroke (6)	Ast ₂₀	in	mm	426	10,814	407	10,344	426	10,814	407	10,344	426	10,814	407	10,344		
	4-34-4	Aisle width with 40' Container REDUCED / FULL stroke.(6)	Ast ₄₀	in	mm	566	14,380	554	14,075	566	14,380	554	14,075	566	14,380	554	14,075		
	4-35	Outside turning radius REDUCED / FULL stroke	W _a	in	mm	268	6,797	249	6,327	268	6,797	249	6,327	268	6,797	249	6,327		
	4-36	Internal turning radius REDUCED / FULL stroke	b ₁₃	in	mm	135	3,438	103	2,620	135	3,438	103	2,620	135	3,438	103	2,620		
	PERFORMANCE					CUMMINS QSB6.7 TIER 4F ENGINE													
	5-1	Travel speed, with / without load			mph	km/h	12.4	20	15.5	25	12.4	20	15.5	25	12.4	20	15.5	25	
	5-1-1	Travel speed, with load locked / without load			mph	km/h	On request		On request		On request		On request		On request		On request		
	5-2	Lifting speed, with / without load			ft/min	m/s	100	0.51	134	0.68	100	0.51	134	0.68	100	0.51	134	0.68	
	5-2-1	Lifting speed, with 70% load			ft/min	m/s	118		0.60		118		0.60		118		0.60		
5-3	Lowering speed with / without load			ft/min	m/s	108	0.55	108	0.55	108	0.55	108	0.55	108	0.55	108	0.55		
5-5	Drawbar pull - 1 mph 1.6 km/h, with / without load			lbs.	kN	33,497	149	33,721	150	33,272	148	33,721	150	33,272	148	33,497	149		
5-6	Drawbar pull - max, with / without load			lbs.	kN	40,241	179	40,690	181	40,241	179	40,466	180	40,016	178	40,466	180		
5-7	Gradeability - 1 mph 1.6 km/h, with / without load (7)			%	%	37	37	39	39	36	36	38	38	33	33	36	36		
5-8	Gradeability - max, with / without load (7)			%	%	46	46	39	39	44	44	38	38	41	41	36	36		
5-9	Acceleration time, with / without load			sec	sec	On request		On request		On request		On request		On request		On request			
PERFORMANCE					CUMMINS QSB6.7 TIER 3 ENGINE														
5-1	Travel speed, with / without load			mph	km/h	12.4	20	15.5	25	12.4	20	15.5	25	12.4	20	15.5	25		
5-1-1	Travel speed, with load locked / without load			mph	km/h	On request		On request		On request		On request		On request		On request			
5-2	Lifting speed, with / without load			ft/min	m/s	100	0.51	134	0.68	100	0.51	134	0.68	100	0.51	134	0.68		
5-2-1	Lifting speed, with 70% load			ft/min	m/s	118		0.60		118		0.60		118		0.60			
5-3	Lowering speed with / without load			ft/min	m/s	108	0.55	108	0.55	108	0.55	108	0.55	108	0.55	108	0.55		
5-5	Drawbar pull - 1 mph 1.6 km/h, with / without load			lbs.	kN	33,497	149	33,721	150	33,272	148	33,721	150	33,272	148	33,497	149		
5-6	Drawbar pull - max, with / without load			lbs.	kN	40,241	179	40,690	181	40,241	179	40,466	180	40,016	178	40,466	180		
5-7	Gradeability - 1 mph 1.6 km/h, with / without load (7)			%	%	37	37	39	39	36	36	38	38	33	33	36	36		
5-8	Gradeability - max, with / without load (7)			%	%	46	46	39	39	44	44	38	38	41	41	36	36		
5-9	Acceleration time, with / without load			sec	sec	On request		On request		On request		On request		On request		On request			

CERTIFICATION: Hyster lift trucks meet the design and construction requirements of B56.1-1969, per OSHA Section 1910.178(a)(2), and also comply with the B56.1 revision in effect at time of manufacture.

H200HD-EC8 / H200HD-ECD7 / H190HD-ECD8 SPECIFICATIONS



GENERAL	1-1	Manufacturer				HYSTER				HYSTER				HYSTER			
	1-2	Model designation				H200HD-EC8				H200HD-ECD7				H190HD-ECD8			
	1-3	Powertrain / drivetrain				Diesel				Diesel				Diesel			
	1-4	Operator type				Seated				Seated				Seated			
	1-5	Load capacity at load center, nominal (1)	Q	lbs	kg	20,000	9,072			20,000	9,072			19,000	8,618		
	1-5	Load capacity at load center, max lift (1,2)	Q	lbs	kg	19,900	9,026			20,000	9,072			17,000	7,711		
	1-6	Load center distance	c ₁	in	mm	48	1,220			48	1,220			48	1,220		
	1-8	Load distance	x	in	mm	53	1,357			52	1,309			52	1,309		
	1-9	Wheelbase	y	in	mm	177	4,500			177	4,500			177	4,500		
	1-10-1	Stacking height at first row (number x container height)	#	#		8 x 8' 6"				6+1 x 8' 6"				7+1 x 8' 6"			
	1-10-2	Stacking height at first row (number x container height)	#	#		7 x 9' 6"				5+1 x 9' 6"				6+1 x 9' 6"			
WT.	2-1	Service weight		lbs	kg	91,463	41,487			87,012	39,468			90,065	40,853		
	2-2	Axle loading with load, front / rear		lbs	kg	88,690	22,772	40,229	10,329	86,421	20,589	39,200	9,339	88,196	20,867	40,005	9,465
	2-3	Axle loading without load, front / rear		lbs	kg	57,236	34,225	25,962	15,524	55,182	31,830	25,030	14,438	58,520	31,546	26,544	14,309
WHEELS	3-1	Tire type				Pneumatic				Pneumatic				Pneumatic			
	3-2	Tire size, front				14.00-24 24PR				14.00-24 24PR				14.00-24 24PR			
	3-3	Tire size, rear				14.00-24 24PR				14.00-24 24PR				14.00-24 24PR			
	3-5	Wheels, number front / rear (x = driven wheels)				x4 / 2				x4 / 2				x4 / 2			
	3-6	Tread, front	b ₁₀	in	mm	138	3,507			129	3,282			129	3,282		
	3-7	Tread, rear	b ₁₁	in	mm	83	2,108			83	2,108			83	2,108		
	3-8	Tread, front / rear				4 / 3				4 / 3				4 / 3			
DIMENSIONS	4-1	Mast tilt, forward / backward	α/β	deg	deg	4 / 3				4 / 3				4 / 3			
	4-2	Height, mast lowered	h ₁	in	mm	476	12,095			374	9,495			425	10,795		
	4-3	Free lift	h ₂	in	mm	0	0			0	0			0	0		
	4-4	Lift	h ₃	in	mm	750	19,050			545	13,850			648	16,450		
	4-4-1	Lift height, minimum (3)	h _{3,1,1}	in	mm	91	2,318			97	2,472			97	2,472		
	4-4-2	Lift height, maximum (3)	h _{3,1,2}	in	mm	841	21,368			643	16,322			745	18,922		
	4-5	Height, mast extended	h ₄	in	mm	851	21,620			646	16,420			749	19,020		
	4-7	Height of cabin (with strobe light) (4)	h ₆	in	mm	157	3,976			157	3,976			157	3,976		
	4-8	Seat height to SIP (5)	h ₇	in	mm	105	2,676			105	2,676			105	2,676		
	4-19	Overall length	l ₁	in	mm	365	9,262			363	9,214			363	9,214		
	4-20	Length to face of load	l ₂	in	mm	269	6,824			267	6,776			267	6,776		
	4-21	Overall width	b ₂	in	mm	171	4,335			162	4,110			162	4,110		
	4-24	Spreader width, retracted/extended'	b ₃	in	mm	240	6,084	481	12,218	259	6,566	500	12,700	259	6,566	500	12,700
	4-31	Ground clearance, lowest point	m ₁	in	mm	9	236			9	236			9	236		
	4-32	Ground clearance, center or wheelbase	m ₂	in	mm	15	383			15	383			15	383		
	4-34-3	Aisle width with 20' Container REDUCED / FULL stroke (6)	Ast ₂₀	in	mm	426	10,814	407	10,344	424	10,766	405	10,296	424	10,766	405	10,296
	4-34-4	Aisle width with 40' Container REDUCED / FULL stroke (6)	Ast ₄₀	in	mm	566	14,380	554	14,075	574	14,582	562	14,281	574	14,582	562	14,281
PERFORMANCE	4-35	Outside turning radius REDUCED / FULL stroke	W _a	in	mm	268	6,797	249	6,327	268	6,797	249	6,327	268	6,797	249	6,327
	4-36	Internal turning radius REDUCED / FULL stroke	b ₁₃	in	mm	135	3,438	103	2,620	135	3,438	103	2,620	135	3,438	103	2,620
	PERFORMANCE																
	CUMMINS QSB6.7 TIER 4F ENGINE																
	5-1	Travel speed, with / without load		mph	km/h	12.4	15.5	20	25	12.4	15.5	20	25	12.4	15.5	20	25
	5-1-1	Travel speed, with load locked / without load		mph	km/h	On request	On request			6.2	15.5	10	25	6.2	15.5	10	25
	5-2	Lifting speed, with / without load		ft/min	m/s	91	0.46	122	0.62	91	0.46	122	0.62	91	0.46	122	0.62
	5-2-1	Lifting speed, with 70% load		ft/min	m/s	106	0.54			106	0.54			106	0.54		
	5-3	Lowering speed with / without load		ft/min	m/s	108	108	0.55	0.55	108	108	0.55	0.55	108	108	0.55	0.55
	5-5	Drawbar pull - 1 mph 1.6 km/h, with / without load		lbs.	kN	33,272	33,497	148	149	33,272	33,497	148	149	33,047	33,497	147	149
	5-6	Drawbar pull - max, with / without load		lbs.	kN	40,016	40,466	178	180	40,016	40,466	178	180	40,016	40,466	178	180
	5-7	Gradeability - 1 mph 1.6 km/h, with / without load (7)		%	%	31	31	35	35	33	33	39	39	32	32	39	39
	5-8	Gradeability - max, with / without load (7)		%	%	39	39	35	35	40	40	39	39	39	39	38	38
	5-9	Acceleration time, with / without load		sec	sec	On request	On request			On request	On request			On request	On request		
	PERFORMANCE																
	CUMMINS QSB6.7 TIER 3 ENGINE																
	5-1	Travel speed, with / without load		mph	km/h	12.4	15.5	20	25	12.4	15.5	20	25	12.4	15.5	20	25
	5-1-1	Travel speed, with load locked / without load		mph	km/h	On request	On request			6.2	15.5	10	25	6.2	15.5	10	25
	5-2	Lifting speed, with / without load		ft/min	m/s	91	0.46	122	0.62	91	0.46	122	0.62	91	0.46	122	0.62
	5-2-1	Lifting speed, with 70% load		ft/min	m/s	106	0.54			106	0.54			106	0.54		
	5-3	Lowering speed with / without load		ft/min	m/s	108	108	0.55	0.55	108	108	0.55	0.55	108	108	0.55	0.55
	5-5	Drawbar pull - 1 mph 1.6 km/h, with / without load		lbs.	kN	33,272	33,497	148	149	33,272	33,497	148	149	33,047	33,497	147	149
	5-6	Drawbar pull - max, with / without load		lbs.	kN	40,016	40,466	178	180	40,016	40,466	178	180	40,016	40,466	178	180
	5-7	Gradeability - 1 mph 1.6 km/h, with / without load (7)		%	%	31	31	35	35	33	33	39	39	32	32	39	39
	5-8	Gradeability - max, with / without load (7)		%	%	39	39	35	35	40	40	39	39	39	39	38	38
	5-9	Acceleration time, with / without load		sec	sec	On request	On request			On request	On request			On request	On request		

CERTIFICATION: Hyster lift trucks meet the design and construction requirements of B56.1-1969, per OSHA Section 1910.178(a)(2), and also comply with the B56.1 revision in effect at time of manufacture.

H210HD-ECD8 / H230HD-ECD8 / H230HD-ECD9 SPECIFICATIONS

GENERAL	1-1	Manufacturer				HYSTER				HYSTER				HYSTER			
	1-2	Model designation				H210HD-ECD8				H230HD-ECD8				H230HD-ECD9			
	1-3	Powertrain / drivetrain				Diesel				Diesel				Diesel			
	1-4	Operator type				Seated				Seated				Seated			
	1-5	Load capacity at load center, nominal (1)	Q	lbs	kg	21,000		9,525		23,000		10,432		23,000		10,433	
	1-5	Load capacity at load center, max lift (1,2)	Q	lbs	kg	21,000		9,525		23,000		10,432		13,600		6,169	
	1-6	Load center distance	c ₁	in	mm	48		1,220		48		1,220		48		1,220	
	1-8	Load distance	x	in	mm	52		1,309		52		1,309		52		1,309	
	1-9	Wheelbase	y	in	mm	177		4,500		177		4,500		177		4,500	
	1-10-1	Stacking height at first row (number x container height)	#	#	7+1 x 8' 6"				7+1 x 8' 6"				8+1* x 8' 6"				
1-10-2	Stacking height at first row (number x container height)	#	#	6+1 x 9' 6"				6+1 x 9' 6"				7+1* x 9' 6"					
WT.	2-1	Service weight		lbs	kg	92,343		41,886		94,461		42,847		97,440		44,198	
	2-2	Axle loading with load, front / rear		lbs	kg	91,324		22,015		41,424		9,986		94,455		23,005	
	2-3	Axle loading without load, front / rear		lbs	kg	58,524		33,817		26,546		15,339		58,528		35,933	
WHEELS	3-1	Tire type				Pneumatic				Pneumatic				Pneumatic			
	3-2	Tire size, front				14.00-24 24PR				14.00-24 24PR				14.00-24 24PR			
	3-3	Tire size, rear				14.00-24 24PR				14.00-24 24PR				14.00-24 24PR			
	3-5	Wheels, number front / rear (x = driven wheels)				x4 / 2				x4 / 2				x4 / 2			
	3-6	Tread, front	b ₁₀	in	mm	138		3,507		138		3,507		138		3,507	
	3-7	Tread, rear	b ₁₁	in	mm	83		2,108		83		2,108		83		2,108	
	3-7	Tread, rear				83		2,108		83		2,108		83		2,108	
DIMENSIONS	4-1	Mast tilt, forward / backward	α/β	deg	deg	4 / 3				4 / 3				4 / 3			
	4-2	Height, mast lowered	h ₁	in	mm	425		10,795		425		10,795		476		12,095	
	4-3	Free lift	h ₂	in	mm	0		0		0		0		0		0	
	4-4	Lift	h ₃	in	mm	648		16,450		648		16,450		750		19,050	
	4-4-1	Lift height, minimum (3)	h _{3.1.1}	in	mm	97		2,472		97		2,472		97		2,472	
	4-4-2	Lift height, maximum (3)	h _{3.1.2}	in	mm	745		18,922		745		18,922		847		21,522	
	4-5	Height, mast extended	h ₄	in	mm	749		19,020		749		19,020		851		21,620	
	4-7	Height of cabin (with strobe light) (4)	h ₆	in	mm	157		3,976		157		3,976		157		3,976	
	4-8	Seat height to SIP (5)	h ₇	in	mm	105		2,676		105		2,676		105		2,676	
	4-19	Overall length	l ₁	in	mm	363		9,214		363		9,214		363		9,214	
	4-20	Length to face of load	l ₂	in	mm	267		6,776		267		6,776		267		6,776	
	4-21	Overall width	b ₂	in	mm	171		4,335		171		4,335		171		4,335	
	4-24	Spreader width, retracted/extended	b ₃	in	mm	259		6,566		500		12,700		259		6,566	
	4-31	Ground clearance, lowest point	m ₁	in	mm	9		236		9		236		9		236	
	4-32	Ground clearance, center or wheelbase	m ₂	in	mm	15		383		15		383		15		383	
	4-34-3	Aisle width with 20' Container REDUCED / FULL stroke (6)	Ast ₂₀	in	mm	424		10,766		405		10,296		424		10,766	
	4-34-4	Aisle width with 40' Container REDUCED / FULL stroke.(6)	Ast ₄₀	in	mm	574		14,582		562		14,281		574		14,582	
4-35	Outside turning radius REDUCED / FULL stroke	W _a	in	mm	268		6,797		249		6,327		268		6,797		
4-36	Internal turning radius REDUCED / FULL stroke	b ₁₃	in	mm	135		3,438		103		2,620		135		3,438		
PERFORMANCE	PERFORMANCE		CUMMINS QSB6.7 TIER 4F ENGINE														
	5-1	Travel speed, with / without load		mph	km/h	12.4		15.5		20		25		12.4		15.5	
	5-1-1	Travel speed, with load locked / without load		mph	km/h	6.2		15.5		10		25		6.2		15.5	
	5-2	Lifting speed, with / without load		ft/min	m/s	91		0.46		122		0.62		91		0.46	
	5-2-1	Lifting speed, with 70% load		ft/min	m/s	106		0.54		106		0.54		106		0.54	
	5-3	Lowering speed with / without load		ft/min	m/s	108		0.55		108		0.55		108		0.55	
	5-5	Drawbar pull - 1 mph 1.6 km/h, with / without load		lbs.	kN	33,047		147		33,497		149		33,047		147	
	5-6	Drawbar pull - max, with / without load		lbs.	kN	40,016		178		40,241		179		39,791		177	
	5-7	Gradeability - 1 mph 1.6 km/h, with / without load (7)		%	%	30		30		37		37		29		37	
	5-8	Gradeability - max, with / without load (7)		%	%	37		37		37		37		36		37	
	5-9	Acceleration time, with / without load		sec	sec	On request		On request		On request		On request		On request		On request	
	PERFORMANCE		CUMMINS QSB6.7 TIER 3 ENGINE														
	5-1	Travel speed, with / without load		mph	km/h	12.4		20		15.5		25		12.4		20	
	5-1-1	Travel speed, with load locked / without load		mph	km/h	6.2		15.5		10		25		6.2		15.5	
	5-2	Lifting speed, with / without load		ft/min	m/s	91		0.46		122		0.62		91		0.46	
	5-2-1	Lifting speed, with 70% load		ft/min	m/s	106		0.54		106		0.54		106		0.54	
	5-3	Lowering speed with / without load		ft/min	m/s	108		0.55		108		0.55		108		0.55	
	5-5	Drawbar pull - 1 mph 1.6 km/h, with / without load		lbs.	kN	33,047		147		33,497		149		33,047		147	
	5-6	Drawbar pull - max, with / without load		lbs.	kN	40,016		178		40,241		179		39,791		177	
	5-7	Gradeability - 1 mph 1.6 km/h, with / without load (7)		%	%	30		30		37		37		29		37	
	5-8	Gradeability - max, with / without load (7)		%	%	37		37		37		37		36		37	
5-9	Acceleration time, with / without load		sec	sec	On request		On request		On request		On request		On request		On request		

GENERAL	1-1	Manufacturer				HYSTER	
	1-2	Model designation				H180-200HD EC6-9 / H200-230-EC7-9	
	1-3	Powertrain / drivetrain				Diesel	

ENGINE	7-1	Engine manufacturer / model				Cummins / QSB 6.7		Cummins / QSB 6.7	
	7-1a	EPA / CE compliance				Tier 3 / Stage IIIA		Tier 4F / Stage IV	
	7-2	Engine power output according to ISO 1585	hp	kW		220	164	225	168
	7-2-1	Engine power output - Peak	hp	kW		231	172	231	172
	7-3	Rated speed	rpm	1/min		2,200		2,200	
	7-3-1	Engine torque @rpm (1/min)	lb-ft	N-m		700 @ 1500	949 @ 1000	770 @ 1500	1,044 @ 1500
	7-4	Number of cylinders / displacement	# / cm³			6 / 6,690		6 / 6,690	
		Turbocharger	Type			Wastegate, water cooled		Variable geometry, water cooled	
	7-8	Alternator output	Amps			120		120	
	7-9	Electrical system voltage	V			24		24	
	7-10	Battery voltage, rated capacity	V / Ah			24 / 102		24 / 102	

DRIVE	8-1	Drive control / Transmission	Type / #			Hydrodynamic Transmission		Hydrodynamic Transmission	
	8-2	Transmission manufacturer / type	Type / #			ZF 5WG211		ZF 5WG211	
	8-4	Transmission speeds forward / backward	#			5 / 3		5 / 3	
	8-5	Coupling	Type			Torque Converter		Torque Converter	
	8-6	Wheel drive / drive axle manufacturer / type	Type / #			AxleTech / PRC 1756W3H		AxleTech / PRC 1756W3H	
	8-11	Service brake	Type			Oil immersed (wet) disc		Oil immersed (wet) disc	
	8-12	Parking brake	Type			Spring applied, dry disc on drive axle		Spring applied, dry disc on drive axle	

SPREADER	9-1	Spreader manufacturer / type	Type / #			Elme / 586TB MPS		Elme / 584LD PPS		Elme / 586TB MPS		Elme / 584LD PPS	
	9-1-1	Pile slope, mechanical without PPS	degrees			+8.1 / -8.1	+205 / - 205	+7.6 / -7.6	+192 / - 192	+8.1 / -8.1	+205 / - 205	+7.6 / -7.6	+192 / - 192
	9-1-2	Pile slope, total with PPS	degrees			+/- 6		+/- 6		+/- 6		+/- 6	
	9-3	Size of containers	ft			ISO 20' - 40'		ISO 20' - 40'		ISO 20' - 40'		ISO 20' - 40'	
	9-4	Side shift	b _s	in	mm	+ 23.6 / - 23.6		+ 600 / - 600		+ 23.6 / - 23.6		+ 600 / - 600	
	9-4-1	Telescoping time, extend / retract	seconds			14 / 16		14 / 16		14 / 16		14 / 16	

MISC	10-3	Hydraulic tank capacity	gal	l		71	268	71	268
	10-4	Fuel tank capacity	gal	l		92	350	92	350
	10-4-1	DEF/AdBlue Tank capacity	gal	l		N/A		10	38
	10-5	Steering design				Hydrostatic		Hydrostatic	
	10-7	Sound pressure level at driver's seat	Lpaz	dB(A)		68.3		68.3	
	10-7-1	Sound pressure level at driver's seat	Lwaz	dB		On request		On request	


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.

- (1) Raised cabin may result in reduced capacity since the "carry" height will be higher.
- (2) Load capacity at highest container positions may be less, depending on truck model, stacking height and tires.
- (3) Minimum/maximum height of twistlocks.
- (4) With cab mounted work lights add 6"/132 mm.
- (5) With raised cabin position add 39" / 1000 mm.
- (6) Includes 8"/200 mm clearance. FULL / REDUCED steer cylinder stroke.
- (7) Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines.

All capacities are according to EN1459.

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

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

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.

CERTIFICATION: Hyster lift trucks meet the design and construction requirements of B56.1-1969, per OSHA Section 1910.178(a)(2), and also comply with the B56.1 revision in effect at time of manufacture. Certification of compliance with the applicable ANSI standards appears on the lift truck. Performance specifications are for a truck equipped as described under Standard Equipment on this Technical Guide. Performance specifications are affected by the condition of the vehicle and how it is equipped, as well as by the nature, condition of the operating area, proper service and maintenance of the vehicle. If these specifications are critical, the proposed application should be discussed with your dealer.

NOTE: Specifications, unless otherwise listed, are for a standard truck without optional equipment.

Specification data is based on VDI 2198.

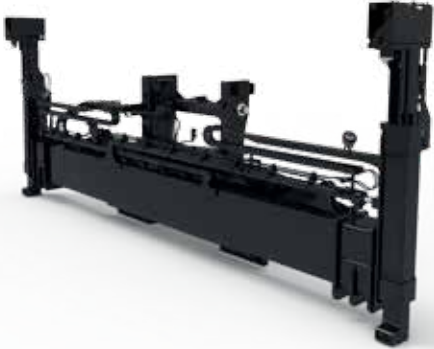



RATED CAPACITIES AND STACKING HEIGHTS

(shown in 1,000 lbs.)

H180HD-EC6 8'6" containers	H180HD-EC7 8'6" containers	H200HD-EC7 8'6" containers
H200HD-EC8 8'6" containers [^] deduct 300 lbs for PPS	H200HD-ECD7 8'6" containers	H190HD-ECD8 8'6" containers
H210HD-ECD8 8'6" containers	H230HD-ECD8 8'6" containers	H230HD-ECD9 8'6" containers

SINGLE CONTAINER SPREADER 588 TB

		<p>Single handling container spreader with Vertical Twistlocks.</p>
		<p>Suitable for:</p> <ul style="list-style-type: none"> • 20' or 40' ISO containers of 8' (2.44 m) • WTP (Wide Twistlock Position) containers • Approx. 2.45-2.50 m wide "pallet-wide" 20' or 40' containers, with ISO-like 'chamfered' corner castings. <p>Not suitable for:</p> <ul style="list-style-type: none"> • US "Domestic" containers • Approx. 2.45-2.60 m wide "CPC" containers (Cellular Pallet-wide Containers) with non-ISO corner castings.

SINGLE CONTAINER SPREADER 586 TB

		<p>Single container handling spreader with Vertical Twistlocks</p>
		<p>Removable "inset" container blocks</p> <p>Suitable for:</p> <ul style="list-style-type: none"> • 20' or 40' ISO containers of 8' (2.44 m) • WTP (Wide Twistlock Position) containers • US "Domestic" containers • Approx. 2.45-2.50 m wide "pallet-wide" 20' or 40' containers, with ISO-like 'chamfered' corner castings. • Approx. 2.45-2.60 m wide "CPC" containers (Cellular Pallet-wide Containers) with non-ISO top corners castings.

SINGLE CONTAINER SPREADER 589 TB

		<p>Single container handling spreader with Vertical Twistlocks</p>
		<p>Forward Reach function on the twistlocks (3.9" - 6.9" / 100-176 mm)</p> <p>Suitable for:</p> <ul style="list-style-type: none"> • 20' or 40' ISO containers of 8' (2.44 m) • WTP (Wide Twistlock Position) containers • US "Domestic" containers • Approx. 2.45-2.50 m wide "pallet-wide" 20' or 40' containers, with ISO-like 'chamfered' corner castings. • Approx. 2.45-2.60 m wide "CPC" containers (Cellular Pallet-wide Containers) with non-ISO top corners castings.

DOUBLE CONTAINER SPREADER 584 LD

		<p>Double handle container spreader.</p>
		<ul style="list-style-type: none"> • Picking container(s) at the front (hooks) and side (clamps) of the corner castings. • Available with speed limitation features for laden/unladen condition

FEATURES AND OPTIONS

ENGINE – TIER 4 FINAL

Cummins QSB 6-cylinder diesel engine delivers 225 hp rated (235 hp peak) and 770 lb-ft of maximum torque. EPA Tier 4 Final compliant engine features cooled exhaust gas recirculation (EGR) technology with selective catalytic reduction (SCR) and an integrated diesel exhaust fluid (DEF) delivery system. A 2-stage diesel oxidation catalyst (DOC) is also included for particulate matter (PM) reduction. Innovative selectable ECO performance modes offer excellent fuel economy and maximum productivity providing up to 15% fuel consumption reduction versus previous Tier 3 powered trucks.

Hibernate idle saves fuel by lowering engine speed when functions are not being used. Also includes:

- Variable geometry turbocharger, water cooled.
- 120 amp alternator

- Automatic throttle-up on hoist enables engine to run in most efficient rpm range.
- Standard diffuser for exhaust temperature reduction

OPTIONAL ENGINE – TIER 3

(Not available in US and Canada)

Cummins QSB 6-cyl. diesel engine delivers rated 220 hp (230 hp peak) and 700 lb-ft of maximum torque. EPA Tier 3 compliant. Also includes:

- Wastegate turbocharger, water cooled
- 120 amp alternator

CONTAINER ATTACHMENT

Equipped with Hyster® model 586 spreader featuring twistlock pockets in the standard ISO position. Features removable blocks for handling wider domestic containers, and 24" of sideshift in each direction; 3 degrees of mechanical pile slope; 2 twistlocks to engage corner castings with 1 lifting eye in each of the two corners.

HYDRAULIC SYSTEM

Hyster on-demand load-sensing hydraulic system pumps oil only when required, and can pump at lower engine rpm.

- Saves fuel
- Reduces heat
- Extends component and oil life
- Quieter operation

ELECTRICAL SYSTEM

- Sealed Deutsch connectors
- CANbus system for easy diagnostics of engine, transmission, hydraulics and spreader.

OPERATOR AREA

- Ergonomically designed hydraulic controls and direction control lever are within easy reach.
- Angled floor plate and pedals are positioned for operator comfort.
- Telescopic, tilt steer column.
- Several air suspension seat options are available.

PERFORMANCE	STD	OPT
Cummins QSB 6.7L Diesel Engine rated 220 hp/164 kW Tier 3*; Wastegate turbocharger, water cooled		*
Cummins QSB 6.7L Diesel Engine rated 225 hp/168 kW Tier 4F*; Variable geometry turbocharger, water cooled		*
Hibernate idle	x	
Hydraulically driven on-demand cooling fan*		*
120 amp alternator	x	
Powertrain protection system	x	
ZF Transmission 5WG211 5-spd fwd/3-spd reverse auto-shifting	x	
AxleTech Drive Axle PRC1756 W3H (162" / 4112 mm across drive tires)*	x	
Wide drive axle (171" / 4335 mm across drive tires)	x	
DRIVE	STD	OPT
Traction speed limiter when carrying container (adjustable)	x	
Traction speed limiter - unconditional (adjustable)		x
Traction speed limiter when not in the carry position		x
Steer axle with full stroke steer cylinder for tight turning radius	x	
Steer axle with reduced stroke steer cylinder for longer tire life		x
Premium pneumatic bias ply tires	x	
Premium radial tires		x
Premium pneumatic-shaped solid tires		x
LIFT	STD	OPT
On-Demand Load Sensing Hydraulic System	x	
Automatic Throttle-up when lifting (in neutral or inching)	x	
Variable lap mast for low roller forces	x	
2 cylinder / 2 chain design	x	
Hydraulic system temperature protection		x

HANDLING	STD	OPT
Hyster Model 586TB single spreader, with removable blocks for ISO or wide containers		x
Hyster Model 588TB single spreader		x
Hyster Model 589TB single spreader, with hydraulically adjustable head for ISO or wide containers		x
Hyster Model 584LD double spreader with hooks and side clamps		x
Other double-handling spreaders		x
Mechanical Pile Slope	x	
Powered Pile Slope	x	
Automatic one-touch Extend/Retract (20'/40')		x
Mast Tilt Indicator - Mechanical		x
ERGONOMICS	STD	OPT
Isolated mounting for low noise and vibration	x	
Coat hook	x	
Front, top and rear wipers	x	
Front and rear window defrosters	x	
Left side handrails, stairway and cabin door	x	
Right side handrails, stairway and cabin door	x	
7" digital operator display	x	
Multifunction display panel	x	
Seat-side joystick hydraulic control	x	
Steering wheel spinner knob	x	
Directional control lever	x	
MONOTROL		*
Interior wide angle mirrors	x	
Heater with 3 speed fan	x	
Telescoping & tilting steering column	x	
Recirculation fan	x	
DC/DC converter 24 volt/12 volt with socket		x

FEATURES AND OPTIONS

ERGONOMICS (continued)	STD	OPT
2nd 12 volt socket		x
Accessory mounting post		x
Rear locking console in cab		x
Heated top window		x
"H"-pattern front wiper		x
Air conditioning		x
Sun shades on top and rear		x
Radio preparation set-up - wiring, speakers, antenna		x
Reading light		x
Operator presence system	x	
Mechanical suspension seat	x	
Deluxe air suspension seat		x
Low backrest seat		*
High backrest seat		*
Cloth seat cover	x	
Vinyl seat cover		x
Seat heating		x
2-point high visibility seatbelt	x	
3-point high visibility seatbelt		x
VISIBILITY	STD	OPT
External wide angle mirrors mounted to front fenders	x	
Exterior mirrors mounted to cab		x
Rear view camera system		x
Halogen work lights	x	
High Performance LED work lights		x
LED twistlock indicator lights	x	
LED stop/tail/brake lights	x	
Turn signals, hazard & marker lights (LED)		*
Raised cabin height		x
Cabin automatic tip-up (for high stacking)		x
APPEARANCE	STD	OPT
Hyster yellow paint base truck	x	
Special paint base truck		x


OPERATION	STD	OPT
Electric air horn 112 dB	x	
Visible alarm – Amber strobe light	x	
Audible alarm – Reverse direction activated 82–102 dB(A), self-adjusting	x	
Forward motion alarm		x
Seatbelt interlock for engine start		x
Seatbelt indicator light on top of cab		x
Tire pressure monitoring system		x
Lockable battery disconnect switch	x	
Battery jump start connector (NATO plug)		x
Adjustable automatic “Empty Seat” engine shutdown		x
Trainer seat		x
Non-locking fuel cap	x	
Lockable fuel cap		x
Fuel strainer in fuel tank		x
Hyster Tracker wireless asset management - Monitoring		*
Hyster Tracker wireless asset management - Access / Verification		x
Auto greasing system for basic truck & outer mast		x
Auto greasing system for spreader		x
Centralized Greasing provision for mast upper chain sheaves		x
24 volt electrical system	x	
Engine block heater 110/240 volt		x
Steer wheel lug nut protection		*
Rear Mud Flaps		x
Tilting operator compartment for service	x	
Powered tilting operator compartment for service		x
SUPPLEMENTAL	STD	OPT
Literature package	x	
Operator's manual	x	
CE certification		*

*Standard or optional in selected markets. Other options available through Special Products Engineering Department (SPED). Contact Hyster for details.



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Part No. H180-230HDEC/TG
6/2017 Litho in U.S.A.

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