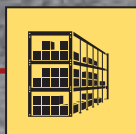




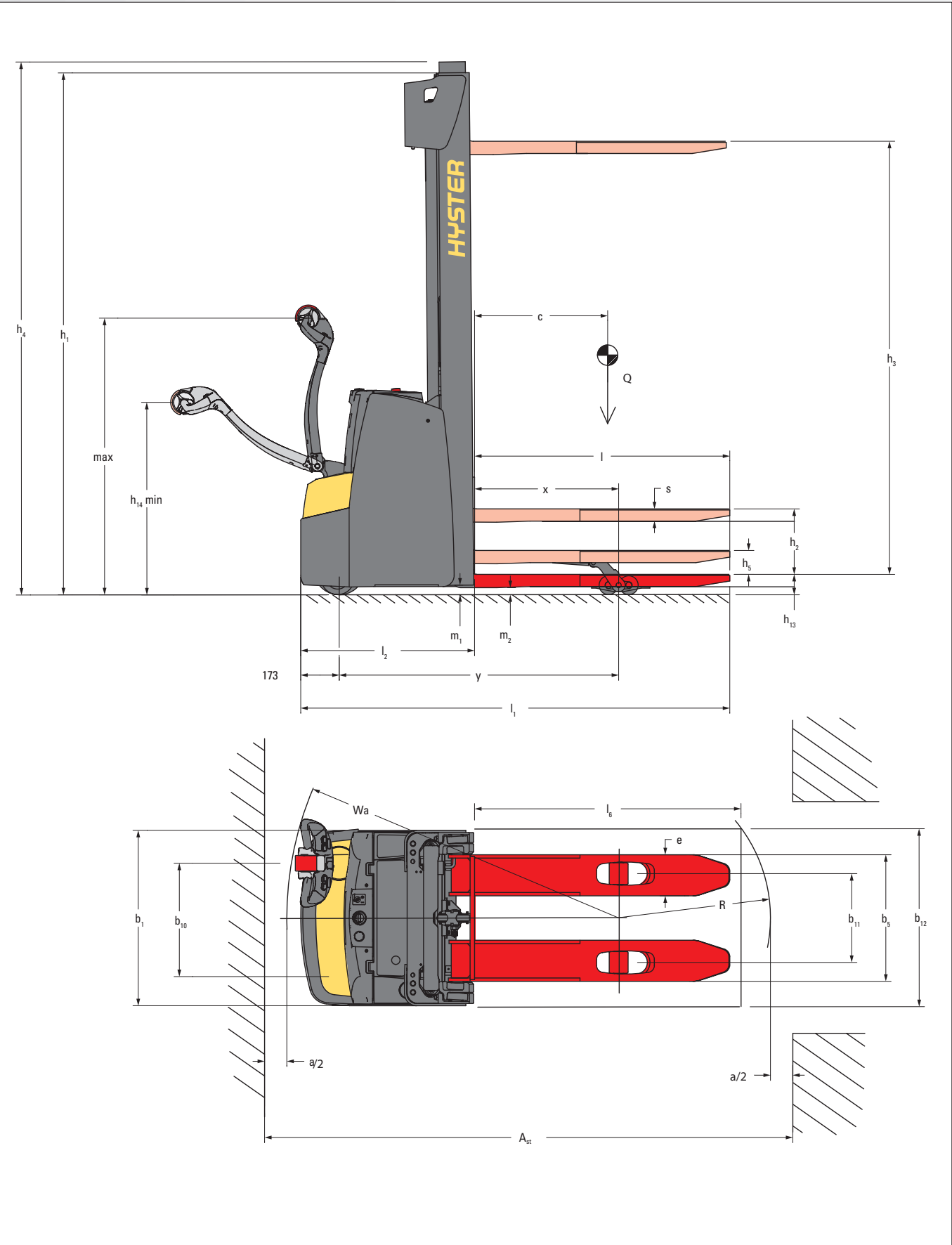
**STRONG PARTNERS.  
TOUGH TRUCKS.™**



## **S1.2-S1.6 IL SERIES TECHNICAL GUIDE**



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



GENERAL	1-1	Manufacturer			HYSTER	HYSTER	HYSTER
	1-2	Model designation			S1.2 IL	S1.4 IL	S1.6 IL
	1-3	Drive			Electric (battery)	Electric (battery)	Electric (battery)
	1-4	Operator type			Pedestrian	Pedestrian	Pedestrian
	1-5	Rated capacity/rated load	$Q_1$	t	1.2	1.4	1.6
WEIGHT	1-6	Load centre distance	c	mm	600	600	600
	1-8	Load distance, centre of drive axle to fork (1)	x	mm	644	644	644
	1-9	Wheelbase	y	mm	1350	1350	1422
	2-1	Service weight (9)		kg	1111	1111	1187
	2-2	Axle loading with load, front / rear		kg	832   1479	760   1751	920   1867
WHEELS	2-3	Axle loading without load, front / rear		kg	735   376	715   396	790   397
	3-1	Tyre type			Topthane / Polyurethane	Topthane / Polyurethane	Topthane / Polyurethane
	3-2	Tyre size, front			230 x 70	230 x 70	230 x 70
	3-3	Tyre size, front			85 x 95	85 x 75	85 x 75
	3-4	Additional wheels (dimensions)			150 x 54	150 x 54	150 x 54
DIMENSIONS	3-5	Wheels, number front / rear (x = driven wheels)			1x+1/2	1x+1/4	1x+1/4
	3-6	Tread, front	$b_{10}$	mm	510	510	510
	3-7	Tread, rear	$b_{11}$	mm	385	385	385
	4-2	Height, mast lowered	$h_1$	mm	1900	1900	1900
	4-3	Free lift	$h_2$	mm	100	100	100
	4-4	Lift	$h_3$	mm	2800	2800	2800
	4-5	Height, mast extended	$h_4$	mm	3328	3328	3328
	4-6	Initial lift	$h_5$	mm	120	120	120
	4-9	Height drawbar in driving position min./max.	$h_{14}$	mm	867   1223	867   1223	867   1223
	4-15	Height, lowered	$h_{13}$	mm	90	90	90
	4-19	Overall length (2)	$l_1$	mm	2028 (17)	2028	2100
	4-20	Length to face of forks (2)	$l_2$	mm	878 (17)	878	950
	4-21	Overall width	$b_1/b_2$	mm	790	790	790
	4-22	Fork dimensions DIN ISO 2331	s/e/l	mm	55 / 185 / 1150 (14)	55 / 185 / 1150 (14)	55 / 185 / 1150 (14)
	4-24	Fork-carriage width	$b_3$	mm	-	-	-
	4-25	Distance between fork-arms	$b_5$	mm	570	570	570
	4-26	Distance between wheel arms/loading surfaces	$b_4$	mm	-	-	-
	4-31	Ground clearance, laden, below mast	$m_1$	mm	44	44	44
	4-32	Ground clearance, centre of wheelbase	$m_2$	mm	20	20	20
PERFORMANCE	4-34-1	Aisle width for pallets 1000 x 1200 crossways	$A_{st}$	mm	2449 (17)	2449	2518
	4-34-4	Aisle width for pallets 800 x 1200 lengthways	$A_{st}$	mm	2436 (17)	2436	2505
	4-35	Turning radius (15)	$W_a$	mm	1551 (17)	1551	1620
	5-1	Travel speed with / without load		km/h	6.0	6.0	6.0
	5-1-1	Travel speed with / without load, backwards		km/h	6.0	6.0	6.0
	5-2	Lifting speed with / without load		m/s	0.16   0.27	0.17   0.28	0.16   0.28
	5-3	Lowering speed with / without load		m/s	0.40   0.25	0.40   0.35	0.40   0.35
	5-7	Gradeability - 1.6 km/h, with / without load		%	4.1   10.6	4.3   11.9	3.7   11.5
	5-9	Max. gradeability - 1.6 km/h, with / without load		%	11.0   22.5	10.9   24.4	9.6   24.5
	5-10	Service brake			Electromagnetic	Electromagnetic	Electromagnetic
	6-1	Drive motor, S2 60 min rating		kW	1.2	1.2	1.2
	6-2	Lift motor S3 15% rating		kW	3.0 (12)	3.0 (12)	3.0 (12)
	6-3	Battery according to DIN 43531/35/36 A,B,C, no			B	B	B
	6-4	Battery voltage/nominal capacity K5		V/Ah	24V / 250Ah (8)	24V / 250Ah (11)	24V / 375Ah (7)
	6-5	Battery weight (3)		kg	212	212	288
	6-6	Energy consumption according to VDI cycle (mechanic steering/electric steering)		kWh/h	0.78   100	0.89   1.13	0.99   1.13
	8-1	Type of drive unit			AC-Controller	AC-Controller	AC-Controller
	10-7	Sound pressure level at the driver's position (mechanic steering/electric steering)		dB (A)	67.6   64.0	67.6   64.0	67.6   64.0

2 STAGE NFL

	Lift height h <sub>3</sub> (mm)	Free lift h <sub>2</sub> (m)	Height, mast lowered h <sub>1</sub> (mm) (1)	Height, mast extended h <sub>4</sub> (mm) (2)	Weight of the mast (kg) (3)
S12 IL   S1.4 IL   S1.6 IL	2800	100	1900 (4)	3328	329
	3000	100	2000 (4)	3528	343
	3200	100	2100	3728	356
	3400	100	2200	3928	369
	3600	100	2300	4128	382
	3800	100	2400	4328	395
	4000	100	2500	4528	409
	4200	100	2600	4728	422

2 STAGE FFL

	Lift height h <sub>3</sub> (mm)	Free lift h <sub>2</sub> (m)	Height, mast lowered h <sub>1</sub> (mm) (1)	Height, mast extended h <sub>4</sub> (mm) (2)	Weight of the mast (kg) (3)
S1.2 IL   S1.4 IL   S1.6 IL	2740	1418	1850 (4)	3268	341
	2940	1518	1950 (4)	3468	354
	3140	1618	2050	3668	367
	3340	1718	2150	3868	380
	3540	1818	2250	4068	393
	3740	1918	2350	4268	406
	3940	2018	2450	4468	419
	4140	2118	2550	4668	432

3 STAGE FFL

	Lift height h <sub>3</sub> (mm)	Free lift h <sub>2</sub> (m)	Height, mast lowered h <sub>1</sub> (mm) (1)	Height, mast extended h <sub>4</sub> (mm) (2)	Weight of the mast (kg) (3)
S1.2 IL	4040	1318	1850 (4)	4606	462
	4340	1418	1950 (4)	4906	481
	4620	1518	2050	5186	499
	4900	1618	2150	5466	518

3 STAGE FFL

		Lift height h <sub>3</sub> (mm)	Free lift h <sub>2</sub> (m)	Height, mast lowered h <sub>1</sub> (mm) (1)	Height, mast extended h <sub>4</sub> (mm) (2)	Weight of the mast (kg) (3)
S1.6 IL	S1.4 IL	4040	1318	1850 (4)	4606	462
		4340	1418	1950 (4)	4906	481
		4620	1518	2050	5186	499
		4900	1618	2150	5466	518
		5180	1718	2250	5746	537
		5460	1818	2350	6026	556
		5740	1918	2450	6306	575
		6020	2018	2550	6586	594

MODEL TABLE 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) With 3 stage mast: - 43mm
- (2) With 3 stage mast: +43mm;  
with 3 stage mast with load backrest: +43mm;  
with 2 stage mast with load backrest: +27mm.
- (3) These values may vary of +/-5%.
- (4) Available batteries 24V / 150Ah (144 kg) ; 24V / 150Ah Polypropylene case version (125 kg) ; 24V / 200Ah Polypropylene case version (160 kg) ; 24V / 100Ah Li-Ion (144 kg) ; 24V / 200Ah Li-Ion (154 kg) .
- (5) Available battery 24V / 210Ah (212 kg) ; 24V / 250Ah Polypropylene case version (180 kg + ballast 32 kg ) ; 24V / 200Ah Li-Ion (211 kg).
- (6) Available battery 24V / 210Ah (212 kg) ; 24V / 315Ah (288 kg) ; 24V / 375Ah (288 kg) ; 24V / 250Ah Polypropylene case version (180 kg + ballast 32 kg ) ; 24V / 200Ah Li-Ion (211 kg) ; 24V / 300Ah Li-Ion (277 kg) ; with 315/375Ah the wheelbase is increased y=+72 mm.
- (7) Available battery 24V / 315Ah (288 kg) ; 24V / 300Ah Li-Ion (277 kg).
- (8) Available battery 24V / 210Ah (212 kg) ; 24V / 200Ah BS (185 Kg) the battery is not Din B ; 24V / 200Ah Li-Ion (154 kg) ; 24V / 200Ah Li-Ion (211 kg) ; with BS200Ah the wheelbase is decreased y=-62 mm.

- (9) With forks 1400/1600mm: +14 kg.
- (10) Available b<sub>5</sub> 680 mm: with b<sub>5</sub> 680mm, x -43mm, l<sub>1</sub> and l<sub>2</sub> +43mm.
- (11) Available battery 24V / 210Ah (212 kg) ; 24V / 315Ah (288 kg) ; 24V / 375Ah (288 kg) ; 24V / 200Ah Li-Ion (211 kg) ; 24V / 300Ah Li-Ion (277 kg) ; with 315/375Ah the wheelbase is increased y=+72 mm.
- (12) Value referred to S3 6%.
- (13) Value referred to S3 12%.
- (14) With 2 stage mast and b<sub>5</sub>=570mm the s dimension increases 5mm for first 250mm at toe.
- (16) Available battery 24V / 315Ah (288 kg).
- (17) With battery 200Ah BS -60 mm

MAST INFORMATION TABLE NOTES:

- (1) With free lift of 100mm for NFL mast.
- (2) With load backrest (h=1000) for carriage: h<sub>4</sub> + 562mm (2 stage mast), + 524mm (3 stage mast), + 518 mm (S2.0 2 stage mast).
- (3) All weights are: mast structures (weldment, cylinders, chain, pulley) + oil EXCLUDED: forks, accessories.
- (4) Not available with vertical extraction of battery BS200Ah.

FORKS TABLE NOTES:

- (1) 2 stage mast only: less 27 mm with a load backrest fitted
- (2) 2 stage mast only: add 27 mm with a load backrest fitted
- (3) Values referred to b<sub>3</sub>

2 STAGE MAST

	Fork length (1)	Wheelbase	Turning radius (3)	Distance between fork-arms	Length to face of forks (2) (3)	Overall length (3)	Load distance (1)	Load dimensions			Aisle width (3)
	l (mm)	y (m)	Wa (mm)	b <sub>5</sub> (mm)	l <sub>2</sub> (mm)	l <sub>1</sub> (mm)	x (mm)	l <sub>6</sub> (mm)	b <sub>12</sub> (mm)	pallet position	Ast (mm)
S1.2 IL   S1.4 IL (250AH)	800	1150	1458	520/570/680	878	1678	444	1000	800	crossways	2343
								800	800	lengthwise	2193
								1000	1000	crossways	2365
								1000	800	lengthwise	2286
	1000	1350	1551	520/570/680	878	1878	644	1000	1200	crossways	2449
								1200	800	lengthwise	2436
	1150	1350	1551	570	878	2028	644	1000	1400	crossways	2763
								1400	800	lengthwise	2731
S1.2 IL   S1.4 IL (250AH)	1400	1550	1846	520/570/680	878	2278	844	1000	1600	crossways	2861
								1600	800	lengthwise	2901
	1600	1550	1846	520/570/680	878	2478	844				

3 STAGE MAST

	Fork length (1)	Wheelbase	Turning radius (3)	Distance between fork-arms	Length to face of forks (2) (3)	Overall length (3)	Load distance (1)	Load dimensions			Aisle width (3)
	l (mm)	y (m)	Wa (mm)	b <sub>5</sub> (mm)	l <sub>2</sub> (mm)	l <sub>1</sub> (mm)	x (mm)	l <sub>6</sub> (mm)	b <sub>12</sub> (mm)	pallet position	Ast (mm)
S1.2 IL   S1.4 IL (250AH)	800	1150	1458	520/570/680	921	1721	401	1000	800	crossways	2378
								800	800	lengthwise	2223
								1000	1000	crossways	2391
								1000	800	lengthwise	2316
	1000	1350	1551	520/570/680	921	1921	601	1000	1200	crossways	2472
								1200	800	lengthwise	2471
	1150	1350	1551	520/570/680	921	2071	601	1000	1400	crossways	2773
								1400	800	lengthwise	2766
	1400	1550	1846	520/570/680	921	2321	801	1000	1600	crossways	2870
								1600	800	lengthwise	2939
	1600	1550	1846	520/570/680	921	2521	801				

2 STAGE MAST

	Fork length (1)	Wheelbase	Turning radius (3)	Distance between fork-arms	Length to face of forks (2) (3)	Overall length (3)	Load distance (1)	Load dimensions			Aisle width (3)
	l (mm)	y (m)	Wa (mm)	b <sub>5</sub> (mm)	l <sub>2</sub> (mm)	l <sub>1</sub> (mm)	x (mm)	l <sub>6</sub> (mm)	b <sub>12</sub> (mm)	pallet position	Ast (mm)
S1.4 IL (375AH)   S1.6 IL	800	1222	1522	520/570/680	728	1528	444	1000	800	crossways	2407
								800	800	lengthwise	2258
								1000	1000	crossways	2434
								1000	800	lengthwise	2355
	1000	1422	1620	520/570/680	728	1728	644	1000	1200	crossways	2518
								1200	800	lengthwise	2505
	1150	1422	1620	520/570/680	950	2100	644	1000	1400	crossways	2828
								1400	800	lengthwise	2796
	1400	1622	1911	520/570/680	728	2128	844	1000	1600	crossways	2926
								1600	800	lengthwise	2966
	1600	1622	1911	520/570/680	728	2328	844				

3 STAGE MAST

	Fork length (1)	Wheelbase	Turning radius (3)	Distance between fork-arms	Length to face of forks (2) (3)	Overall length (3)	Load distance (1)	Load dimensions			Aisle width (3)
	l (mm)	y (m)	Wa (mm)	b <sub>5</sub> (mm)	l <sub>2</sub> (mm)	l <sub>1</sub> (mm)	x (mm)	l <sub>6</sub> (mm)	b <sub>12</sub> (mm)	pallet position	Ast (mm)
S1.4 IL (375AH)   S1.6 IL	800	1222	1522	520/570/680	993	1793	401	1000	800	crossways	2442
								800	800	lengthwise	2287
								1000	1000	crossways	2460
								1000	800	lengthwise	2385
	1000	1422	1620	520/570/680	993	1993	601	1000	1200	crossways	2541
								1200	800	lengthwise	2540
	1150	1422	1620	520/570/680	993	2143	601	1000	1400	crossways	2839
								1400	800	lengthwise	2831
	1400	1622	1911	520/570/680	993	2393	801	1000	1600	crossways	2935
								1600	800	lengthwise	3005
	1600	1622	1911	520/570/680	993	2593	801				

Bold values are reference version  
Not all versions shown in tables are available as standard option

STANDARD AND OPTIONAL EQUIPMENT TABLE NOTES:

- X Standart equipment
- 0 Optional equipmenrt
- Not available

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.

Specification data is based on VDI 2198.

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 requirements.



➤ STANDARD AND OPTIONAL EQUIPMENT

ERGONOMICS	S1.2 IL	S1.4 IL	S1.6 IL
Key Switch Start	X	X	X
Operator Password	0	0	0
A4 Clip Board	0	0	0
Multipurpose Bar above motor cover	0	0	0
Multipurpose Bar - Across	0	0	0
Multipurpose Clamp - 1PC	0	0	0
Multipurpose Clamp - 2PC	0	0	0
Bottle Holder	0	0	0
Stretch Film Roll Holder	0	0	0
Proportional Lift/Lowering on Tillerhead	X	X	X
Double deck for double pallet handling	0	0	0
CONSTRUCTION	S1.2 IL	S1.4 IL	S1.6 IL
B5=570mm Frame	X	X	X
B5=670mm Frame	X	X	X
Standard Construction	X	X	X
Cold Store Construction (-30° C)	0	0	0
Corrosion Protection	0	0	0
LIFT	S1.2 IL	S1.4 IL	S1.6 IL
2 Stage Non Free Lift Mast	X	X	X
2 Stage Full Free Lift Mast	0	0	0
3 Stage Full Free Lift Mast	0	0	0
1000mm High Load Backrest	0	0	0
OPERATION	S1.2 IL	S1.4 IL	S1.6 IL
1 Function (0 Auxiliary) Hydraulic Control Valve	X	X	X
Audible Forward Alarm (Forks Trailing)	0	0	0
Audible Reverse Alarm (Forks Leading)	0	0	0
Audible Forward and Reverse Alarm	0	0	0
Pedestrian Awareness Light (P.A.L.)	0	0	0
Lexan Mast Guard	0	0	0
Wire Mesh Mast Guard	X	X	X
Hyster Tracker wireless asset management system	0	0	0
Hyster Tracker wireless asset management - Access / Verification	0	0	0
Hyster Tracker wireless asset management - Monitoring	0	0	0
230 x 70mm Tophane Drive Wheel	X	X	X
230 x 70mm NDIIthane Drive Wheel	0	0	0
230 x 70mm NDIIthane Conductive Drive Wheel	0	0	0
230 x 70mm Dynaroll Drive Wheel	0	0	0
230 x 70mm Redthane Drive Wheel	0	0	0
85 x 70mm Tandem Polyurethane Load Wheels	0	0	X
BATTERIES	S1.2 IL	S1.4 IL	S1.6 IL
24V 200Ah BS batteries	0	-	-
24V 210-250Ah batteries	0	-	-
24V 315-375Ah batteries	-	0	0
650 x 150 x 680mm Battery Compartment (for 200 Ah BS Battery)	0	-	-
624 x 212 x 627mm Battery Compartment (for 210/250 Ah DIN Battery)	X	X	-
624 x 284 x 627mm Battery Compartment (for 315/375 Ah DIN Battery)	-	-	X
Vertical Battery Extraction	X	X	X
Side Extraction (Using Rollers)	0	0	0
Twin Battery Change Station	0	0	0
Battery Wired Plug Included	0	0	0
Battery Cable Extension (1500mm)	0	0	0
On Board Charger	0	0	0
50Hz Single Phase 8 Hour Charger	0	0	0
50Hz Single Phase 12 Hour Charger	0	0	0
50Hz Three Phase 8 Hour Charger	0	0	0
High Frequency Single Phase 8 Hour Charger	0	0	0
High Frequency Single Phase 12 Hour Charger	0	0	0

STANDARD AND OPTIONAL EQUIPMENT ◀

APPEARANCE	S1.2 IL	S1.4 IL	S1.6 IL
Hyster paint base truck	X	X	X
Special paint base truck	0	0	0
SUPPLEMENTAL	S1.2 IL	S1.4 IL	S1.6 IL
Warranty: 24 Months / 4,000 Hours manufacturer's warranty	X	X	X
Warranty: 36 Months / 6,000 Hours extended warranty	0	0	0

Please refer to the Price List for full option configurations.  
Other options available through Special Products Engineering Department (SPED). Contact Hyster for details.

PRODUCT FEATURES ◀

The new tough Hyster® Pedestrian Stacker is designed for stacking and retrieving loads at low and medium lift heights and horizontal load transfer over short and medium travel distances. It has excellent manoeuverability, control and visibility.

The all-new Pedestrian Stacker is built with the quality hallmarks of Hyster: tough, intelligent, dependable and efficient.

DEPENDABILITY

- Bumper has increased thickness of 5mm and has been designed with rounds that improve both the protection of the operator’s foot and the robustness.
- On Initial Lift truck mast fixing plates are welded to the carriage.
- Additional block is flanged to the standard manifold to secure that valves are stored inside the truck frame in one place.
- Battery covers are made of thick injection moulded Polycarbonate.
- Dual processors controller for increased reliability.

PRODUCTIVITY

- The Hyster traction motor gives powerful acceleration and has an increased travel speed of up to 6km/h.
- Full AC infrastructure on motor allows seamless changes in direction of travel, increasing cycle speeds and the control of pallet handling operations.
- The Initial Lift truck is equipped with two redundant inductive sensors that lower (with assisted function) the base arms when the forks raise from different heights.

ERGONOMICS

- Tiller arm is mounted in a mid height offset position with a reduced operating space to offer low effort steering and better functions controllability.
- Tiller head with angled left- and right-hand grips and large butterfly buttons incorporates proportional lift and lowering controls within easy reach.
- Mast incorporates Hyster designed profiles that reduce the total mast channel width and lift cylinder position optimized to increase operator visibility.
- Instrument panels are placed in reachable position and designed to house both Key or Keypad with the same layout and cover.
- The battery cover is designed to incorporate object holder although it has a wide sloped central plane to increase forks visibility.

LOW COST OF OWNERSHIP

- The Hyster 1.2 kW traction motor gives powerful acceleration and an increased travel speed for superior performance and increased productivity.
- Low energy consumption makes Pedestrian Stacker one of the most cost effective solutions on the market.
- The battery cover protects the battery from falling objects while the emergency switch is still visible from all angles.
- Dash mounted display can show alarms, digital battery indicator and hourmeter.
- High level of parts commonality with other Hyster products with proven reliability and durability for ease of maintenance.

SERVICEABILITY

- Greased for life load rollers in mast design.
- Display provides error codes, battery status and hour-meter.
- Service access level by laptop and standardized Hyster service cable.
- Troubleshooting via CAN and via Display.
- Service interval hydraulic oil and filter: 3000h or 3 years.
- Standard warranty – 24 months

# STRONG PARTNERS. TOUGH TRUCKS.™

## FOR DEMANDING OPERATIONS, EVERYWHERE.

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

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

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



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