

# BE80-100ZHD SERIES

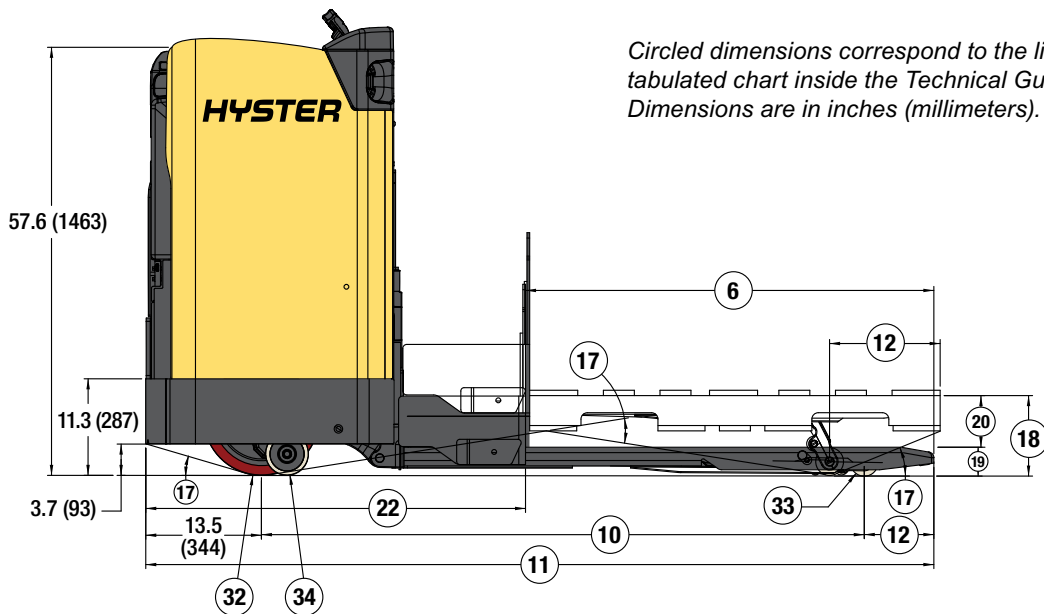
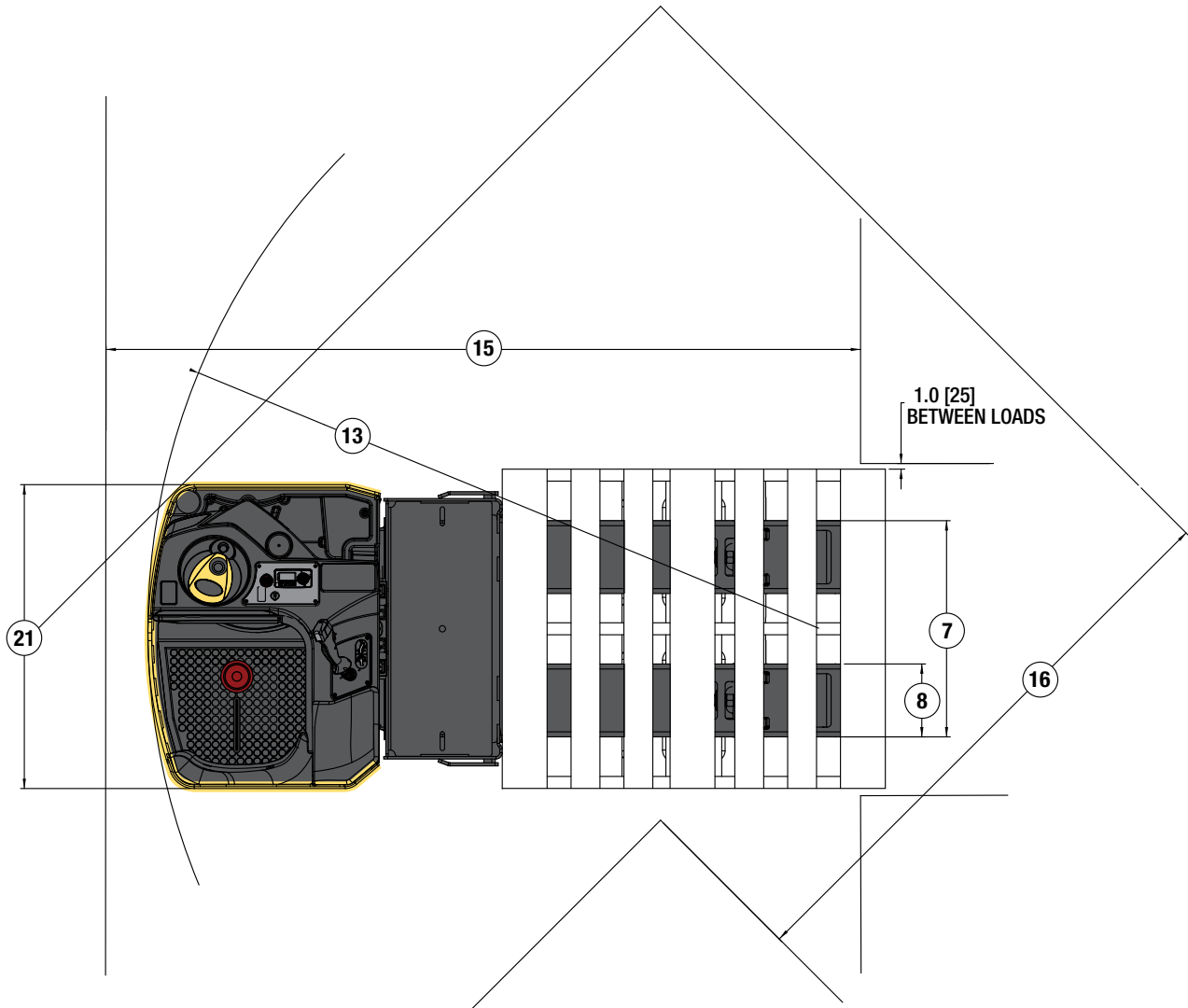
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**ENCLOSED END RIDER PALLET JACK**  
**PRODUCT TECHNICAL GUIDE**



# BE80-100ZHD DIMENSIONS



Circled dimensions correspond to the line numbers on the tabulated chart inside the Technical Guide. Dimensions are in inches (millimeters).

GENERAL	1	Manufacturer				Hyster			
	2	Model designation				BE80ZHD			
	3	Battery type				24 volt			
	4	Operator Type				Stand ride			
	5	Rated capacity – lifting		lb (kg)		8000 (3629)			
	6	Fork length – nominal		in (mm)	48 (1219)	54 (1372)	60 (1524)	84 (2134)	93 (2362)
		Fork length – actual		in (mm)	47.8 (1213)	53.7 (1365)	59.8 (1518)	83.8 (2128)	92.8 (2357)
	7	Fork overall width		in (mm)	27.1 (688)	27.1 (688)	27.1 (688)	28 (710)	28 (710)
	8	Individual fork width		in (mm)	9.1 (232)	9.1 (232)	9.1 (232)	10 (254)	10 (254)
DIMENSIONS	9	Load distance (face of battery box or opt. backrest to center of load wheels)	Raised	in (mm)	35.3 (896)	41.3 (1048)	47.3 (1201)	56.3 (1430)	56.3 (1430)
		Lowered	in (mm)	39.6 (1007)	45.6 (1159)	51.7 (1312)	60.6 (1540)	60.6 (1540)	
	10	Wheelbase**	Raised	in (mm)	66.5 (1689)	72.5 (1842)	78.5 (1994)	87.5 (2222)	87.5 (2222)
			Lowered	in (mm)	70.5 (1791)	76.5 (1944)	82.5 (2096)	91.5 (2324)	91.5 (2324)
	11	Overall length	Raised	in (mm)	92.7 (2354)	98.7 (2506)	104.7 (2659)	128.7 (3269)	137.7 (3498)
			Lowered	in (mm)	92.2 (2341)	98.1 (2493)	104.2 (2646)	128.2 (3256)	137.2 (3485)
	12	Center of load wheel to tip of forks	Raised	in (mm)	12.5 (317)	12.5 (317)	12.5 (317)	27.5 (698)	36.5 (927)
			Lowered	in (mm)	8.1 (206)	8.1 (206)	8.1 (206)	23.1 (588)	32.2 (817)
	13	Outside turning radius	Raised	in (mm)	80.0 (2033)	86.0 (2186)	92.0 (2338)	101.1 (2567)	101.1 (2567)
			Lowered	in (mm)	84.1 (2135)	90.1 (2288)	105.2 (2673)	105.0 (2668)	105.0 (2668)
	15	Right angle stack*	Raised	in (mm)	95.2 (2418)	106.2 (2697)	105.6 (2683)	131.0 (3328)	140.4 (3566)
	16	Equal intersecting aisle*	Raised	in (mm)	70.2 (1782)	73.3 (1862)	76.5 (1942)	82.0 (2084)	82.9 (2105)
	17	Grade clearance	Chassis	%				29	
			Center of wheelbase	%	29	26	25	21	21
			Forks	%	37	37	37	17	13
	18	Overall lift height	Top of forks	in (mm)			9.3 (235)		
	19	Lowered height	Top of forks	in (mm)			3.3 (84)		
	20	Total lift		in (mm)			5.9 (151)		
	21	Truck overall width		in (mm)			38.0 (967)		
	22	Chassis length	Raised	in (mm)			44.9 (1141)		
Lowered			in (mm)			44.4 (1128)			
23	Battery compartment (standard / with battery rollers)					32 x 13.4 x OPEN (813 x 340 x OPEN) / 31 x 13.4 x OPEN (787 x 340 x OPEN)			
PERFORMANCE	24	Max travel speed - chassis first (no load / rated load)	mph (kph)			9.0 / 6.5 (14.5 / 10.5)			
	25	Max travel speed - forks first (no load / rated load)	mph (kph)			7.0 / 6.5 (11.3 / 10.5)			
	26	Number of speeds				Infinitely variable			
	27	Traction motor control method type				AC transistor			
28	Service brake type				Electro-mechanical				
WEIGHT	29	Truck weight (approximate) - without battery (no load)	lb (kg)	1824 (827)	1857 (842)	1891 (858)	1946 (882)	2057 (933)	
	30	Axle loading - drive & caster - static with max weight battery (no load)	lb (kg)	2117 (960)	2173 (985)	2223 (1008)	2278 (1033)	2269 (1029)	
		Axle loading - drive & caster - static with max weight battery (rated load)	lb (kg)	3469 (1574)	3747 (1700)	3981 (1805)	3581 (1624)	3160 (1433)	
	31	Axle loading - load wheels - static with max weight battery (no load)	lb (kg)	707 (321)	684 (310)	667 (302)	668 (303)	788 (357)	
		Axle loading - load wheels - static with max weight battery (rated load)	lb (kg)	7354 (3336)	7109 (3224)	6910 (3134)	7365 (3340)	7897 (3582)	
WHEELS	32	Drive tire – size / type (number of wheels)	in			13.5 x 5.5 x 8.0 / Polyurethane (1)			
	33	Load wheel/trail wheel – size/type (# of wheels)(# of bearings per wheel)	in			3.25" x 6.5" / Polyurethane (2) (2)			
	34	Caster wheel – size / type (number of wheels) caster type	in			5.0" x 2.0" / Poly (2) Adj. w/ Poly spring block			
BATTERY	35	Type				Lead acid			
	36	Ampere hours - maximum	ah			930			
	37	Ampere hours - minimum	ah			375			
	38	Maximum weight	lb (kg)			1500 (680)			
	39	Minimum weight	lb (kg)			825 (374)			

**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.

Above specifications, unless otherwise listed, are for a standard truck without optional equipment.

\* Right Angle Stack and Equal Intersecting Aisle are calculated using a 40" wide pallet flush with fork tips.

\*\* Subtract 12.9mm if equipped with Tandem Load Wheels.

# BE80-100ZHD SPECIFICATIONS

		Hyster							
GENERAL	1	Manufacturer	Hyster						
	2	Model designation	BE80ZHD			BE100ZHD			
	3	Battery type	24 volt						
	4	Operator type	Stand ride						
	5	Rated capacity – lifting	lb (kg)	8000 (3629)		10000 (4536)			
	6	Fork length – nominal	in (mm)	96 (2438)	144 (3658)	144 (3658)	160 (4064)	192 (4877)	
		Fork length – actual	in (mm)	95.8 (2433)	143.8 (3652)	143.8 (3652)	159.9 (4063)	191.9 (4875)	
	7	Fork overall width	in (mm)	28 (710)	28.6 (726)	28.6 (726)	28 (710)	28 (710)	
	8	Individual fork width	in (mm)	10 (254)	10 (254)	10 (254)	10 (254)	10 (254)	
DIMENSIONS	9	Load distance (face of battery box or opt. backrest to center of load wheels)	Raised	in (mm)	56.3 (1430)	104.3 (2649)	83.9 (2131)	106.0 (2694)	106.0 (2694)
		Lowered	in (mm)	60.6 (1540)	108.6 (2759)	87.7 (2228)	110.5 (2806)	110.5 (2806)	
	10	Wheelbase**	Raised	in (mm)	87.5 (2222)	135.5 (3442)	114.6 (2910)	137.4 (3490)	183.1 (4650)
			Lowered	in (mm)	91.5 (2324)	139.5 (3544)	118.6 (3012)	141.4 (3591)	187.0 (4751)
	11	Overall length	Raised	in (mm)	140.7 (3574)	188.7 (4793)	188.7 (4793)	204.9 (5204)	236.9 (6016)
			Lowered	in (mm)	140.2 (3561)	188.2 (4780)	188.2 (4780)	204.4 (5191)	236.3 (6003)
	12	Center of load wheel to tip of forks	Raised	in (mm)	39.5 (1003)	39.5 (1003)	59.9 (1521)	53.9 (1369)	40.3 (1023)
			Lowered	in (mm)	35.2 (893)	35.2 (893)	56.1 (1424)	49.5 (1257)	35.9 (911)
	13	Outside turning radius	Raised	in (mm)	101.1 (2567)	149.1 (3789)	128.1 (3254)	150.9 (3834)	196.6 (4994)
			Lowered	in (mm)	105.0 (2668)	153.1 (3888)	132.1 (3356)	154.9 (3934)	200.6 (5094)
	15	Right angle stack*	Raised	in (mm)	143.5 (3644)	189.8 (4820)	190.6 (4842)	206.0 (5232)	230.0 (5824)
	16	Equal intersecting aisle*	Raised	in (mm)	83.2 (2114)	108.0 (2744)	99.7 (2533)	114.6 (2912)	120.5 (3061)
	17	Grade clearance	Chassis	%	29				
			Center of wheelbase	%	21	15	16	15	13
			Forks	%	12	12	8	9	12
	18	Overall lift height	Top of forks	in (mm)	9.3 (235)				
	19	Lowered height	Top of forks	in (mm)	3.3 (84)				
	20	Total lift		in (mm)	5.9 (151)				
21	Truck overall width		in (mm)	38.0 (967)					
22	Chassis length	Raised	in (mm)	44.9 (1141)					
		Lowered	in (mm)	44.4 (1128)					
23	Battery compartment (standard / with battery rollers)		32 x 13.4 x OPEN (813 x 340 x OPEN) / 31 x 13.4 x OPEN (787 x 340 x OPEN)						
24	Max travel speed - chassis first (no load / rated load)	mph (kph)	9.0 / 6.5 (14.5 / 10.5)						
25	Max travel speed - forks first (no load / rated load)	mph (kph)	7.0 / 6.5 (11.3 / 10.5)						
26	Number of speeds		Infinitely variable						
27	Traction motor control method type		AC transistor						
28	Service brake type		Electro-mechanical						
WEIGHT	29	Truck weight (approximate) - without battery (no load)	lb (kg)	2068 (938)	2282 (1035)	2211 (1002)	2302 (1044)		
	30	Axle loading - drive & caster - static with max weight battery (no load)	lb (kg)	2267 (1028)	2519 (1142)	2405 (1091)	2513 (1139)		
		Axle loading - drive & caster - static with max weight battery (rated load)	lb (kg)	3021 (1370)	4429 (2009)	3194 (1449)	4408 (1999)		
	31	Axle loading - load wheels - static with max weight battery (no load)	lb (kg)	801 (363)	763 (346)	805 (365)	789 (358)		
	Axle loading - load wheels - static with max weight battery (rated load)	lb (kg)	8047 (3650)	6852 (3108)	8016 (3636)	8894 (4034)			
WHEELS	32	Drive tire – size / type (number of wheels)	in	13.5 x 5.5 x 8.0 / Polyurethane (1)					
	33	Load wheel/trail wheel – size/type (# of wheels)(# of bearings per wheel)	in	3.25" x 6.5" / Polyurethane (2) (2)					3.25" x 5.0" / Poly (4)(2)
	34	Caster wheel – size / type (number of wheels) caster type	in	5.0" x 2.0" / Poly (2) adj. w/ poly spring block					
BATTERY	35	Type		Lead acid					
	36	Ampere hours - maximum	ah	930					
	37	Ampere hours - minimum	ah	375					
	38	Maximum weight	lb (kg)	1500 (680)					
	39	Minimum weight	lb (kg)	825 (374)					

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\* Right Angle Stack and Equal Intersecting Aisle are calculated using a 40" wide pallet flush with fork tips.

\*\* Subtract 12.9mm if equipped with Tandem Load Wheels.

# BATTERY SPECIFICATIONS

BATTERY SPECIFICATIONS							
NUMBER OF CELLS	CELL SIZE	PLATES PER CELL	CAPACITY 6 HR RATE AMP HR (KWH)	BATTERY DIMENSIONS			WEIGHT LB (KG)
				"X" IN (MM)	"Y" IN (MM)	"Z" IN (MM)	
12	75	11	375 (8.7)	26.5 (673)	13.0 (330)	23.3 (592)	825 (374)
12	85	11	425 (9.9)	26.5 (663)	13.0 (330)	23.3 (592)	865 (392)
12	75	13	450 (10.5)	30.9 (785)	13.0 (330)	23.3 (592)	987 (448)
12	85	13	510 (11.9)	30.9 (785)	13.0 (330)	23.3 (592)	1035 (469)
12	100	13	600 (14.0)	30.9 (785)	13.0 (330)	26.2 (665)	1200 (544)
12	125	13	750 (17.6)	30.9 (785)	13.0 (330)	31.0 (787)	1500 (680)
12	155	13	930 (21.5)	30.9 (785)	13.0 (330)	31.0 (787)	1500 (680)

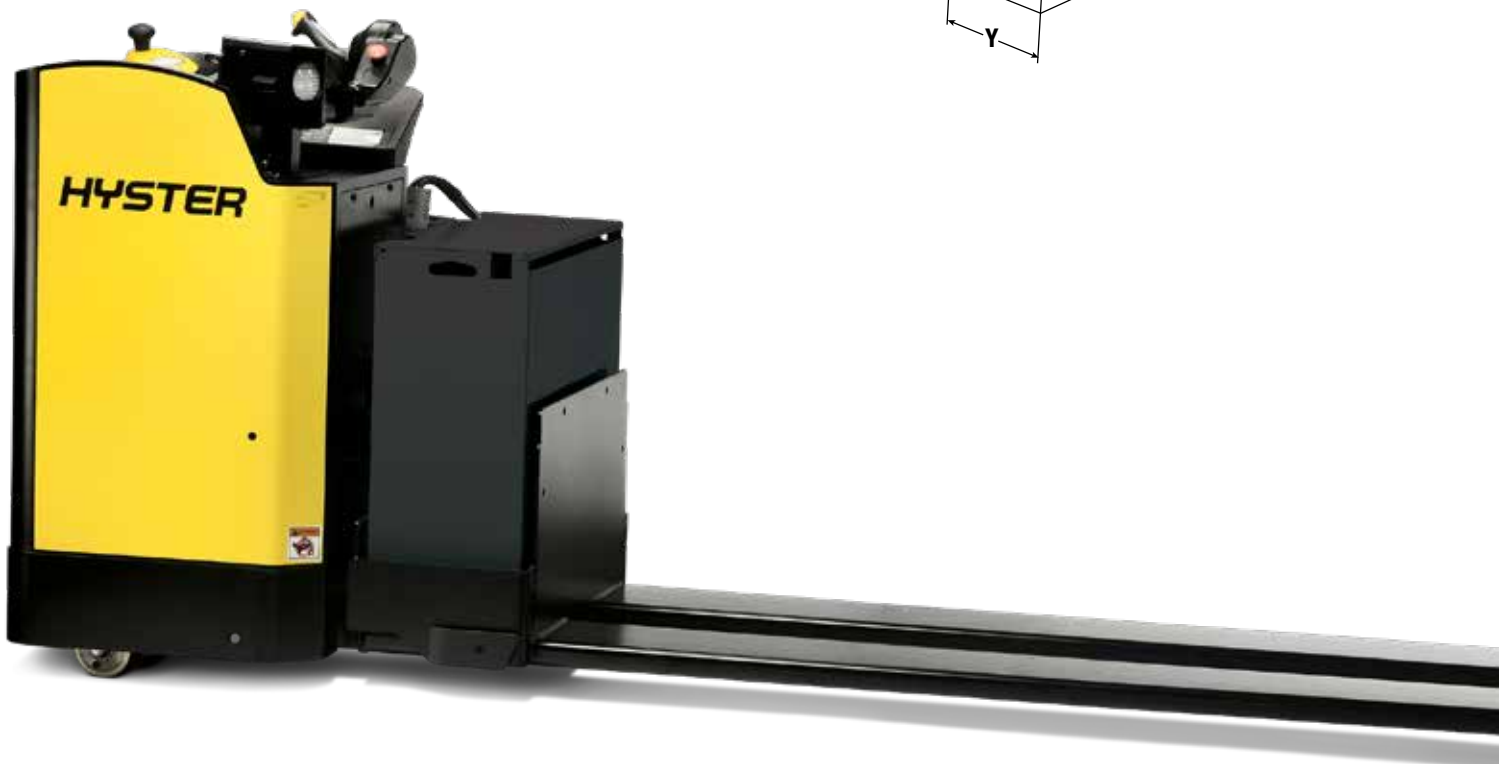
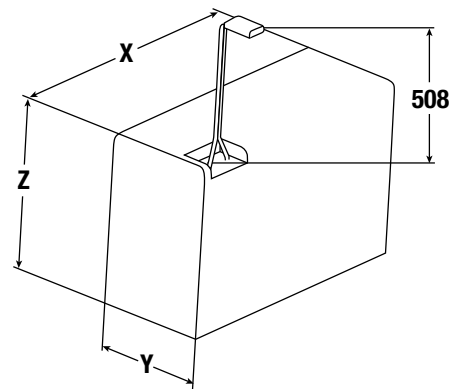
Voltage: 24V

Battery Connector:

- SB 175 Red - Standard / SB 175 Grey - Optional
- SB 350 Red - Optional / SB 350 Grey - Optional

Battery Lead: Length 20" (508mm), Position "B", 1/0 AWG

Battery Cover Required



# FEATURES AND OPTIONS

PERFORMANCE	STD	OPT
24 Volt Electrical System	X	
CONSTRUCTION	STD	OPT
Standard construction operating temperatures: +32°F to +120°F	X	
32.0" x 13.4" open battery compartment	X	
Key ignition switch	X	
UL Classification "E"	X	
Keyless toggle ignition switch		X
Cooler/freezer package: Operating temperatures: 0°F to +120°F		X
Wash down package: Operating temperatures: 0°F to +120°F		X
SubZero: Operating temperatures: -40°F to +120°F		X
DRIVE	STD	OPT
Smooth polyurethane drive tire – 90 durometer – 13.5" x 5.5"	X	
Single polyurethane load wheels – 3.25" x 6.5"	X	
Single, dual and tandem (2 bearing and 4 bearing; sealed bearing)		X
Heavy duty casters – urethane block loaded – 5" x 2" dual polyurethane wheel	X	
Heavy duty casters – sealed wheel		X
Red polyurethane "X" groove – 85 durometer – 13.5" x 5.5"		X
Red polyurethane – 85 durometer – 13.5" x 5.5"		X
Vulkollan polyurethane – 90 durometer – 13.5" x 5.5"		X

LIFT	STD	OPT
Heavy duty, long life lift linkage with lubrication fittings	X	
"X" groove style greaseable pivot bushings (8K)	X	
Hardened, bolt retained flag linkage pins	X	
Knock-out load wheel axles	X	
HANDLING	STD	OPT
48" long heavy duty boxed fork construction, reinforced fork tips	X	
27" fork spread	X	
Pallet exit rollers and runners/entry blades	X	
Pallet entry rollers (standard tip forks only)	X	
Pallet entry bar (BE80ZHD)		X
Flush pallet stop	X	
54" long forks – standard tip		X
60" long forks – standard tip		X
84" long forks – extended tip		X
93" long forks – extended tip		X
96" long forks – extended tip		X
144" long forks – extended tip		X
144" long forks – short wheelbase extended tip		X
160" long forks – extended tip (BE100ZHD)		X
192" long forks – extended tip (BE100ZHD)		X
Load backrest - 48" high (pivoting or bolt-on)		X
Load backrest - 60" high (pivoting or bolt-on)		X
Load backrest - 72" high (bolt-on)		X



## FEATURES AND OPTIONS

ERGONOMICS	STD	OPT
Adjustable steer handle	X	
Electric power steering	X	
Operator Fan		X
OPERATION	STD	OPT
On-board software (program, test and diagnose; no handset required; password protected)	X	
Electronic horn	X	
Convenience tray (battery mounted)		X
RF terminal power supply – 24-volt		X
DC converter with automotive style 12-volt outlet		X
Work light sensor		X
Audible alarm		X
Strobe light		X
Telemetry display		X
Accessory pole (short and long)		X


SUPPLEMENTAL	STD	OPT
Operating manual	X	
12 months / unlimited hour manufacturer's warranty	X	
36 months / 6,000 hour powertrain warranty	X	
Lifetime main frame warranty	X	





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Visit us online at [www.hyster.com](http://www.hyster.com) or call us at **1-800-HYSTER-1**.

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