



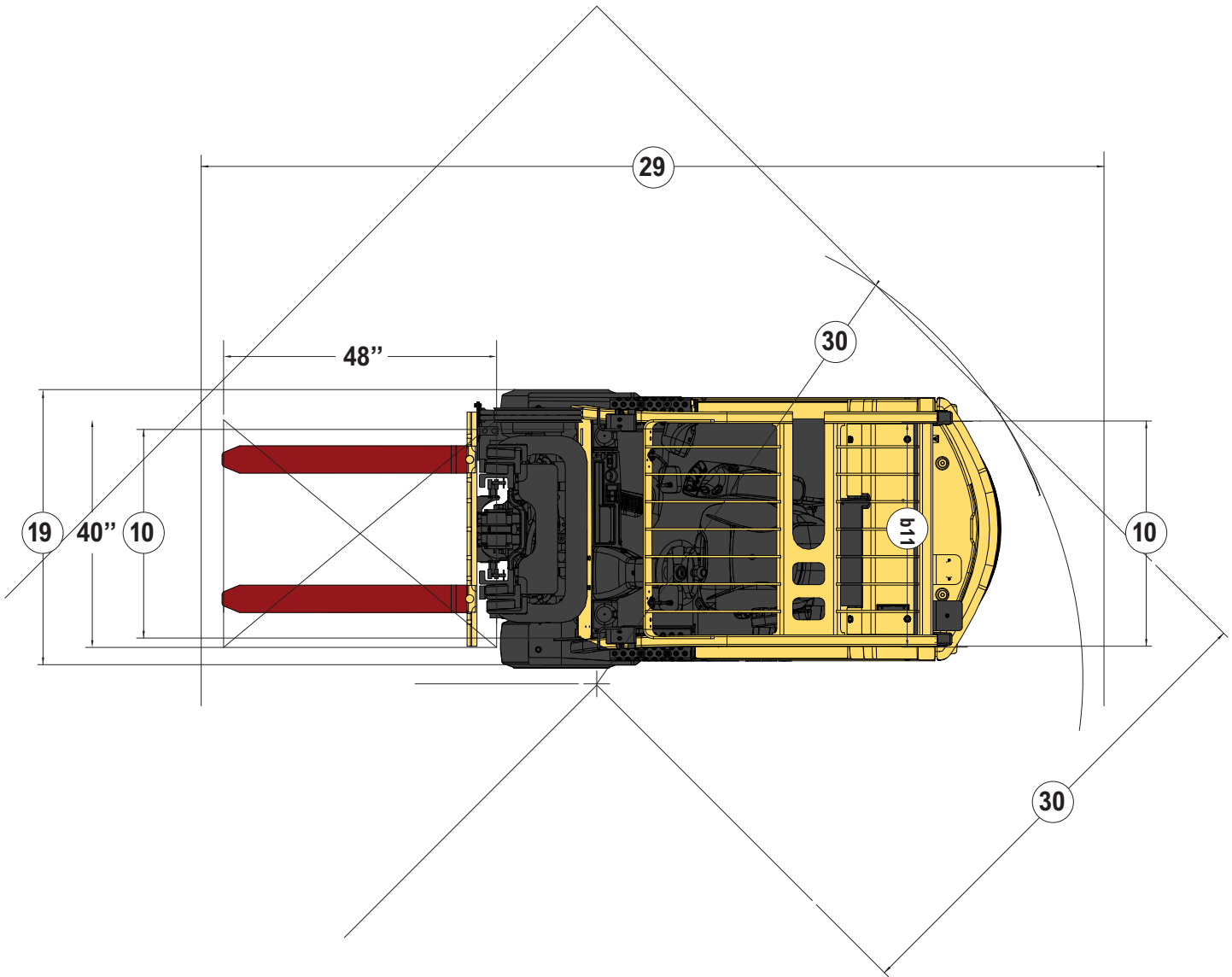
# E80XNL SERIES

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## INTEGRATED LITHIUM-ION COUNTERBALANCED FORKLIFT PRODUCT TECHNICAL GUIDE

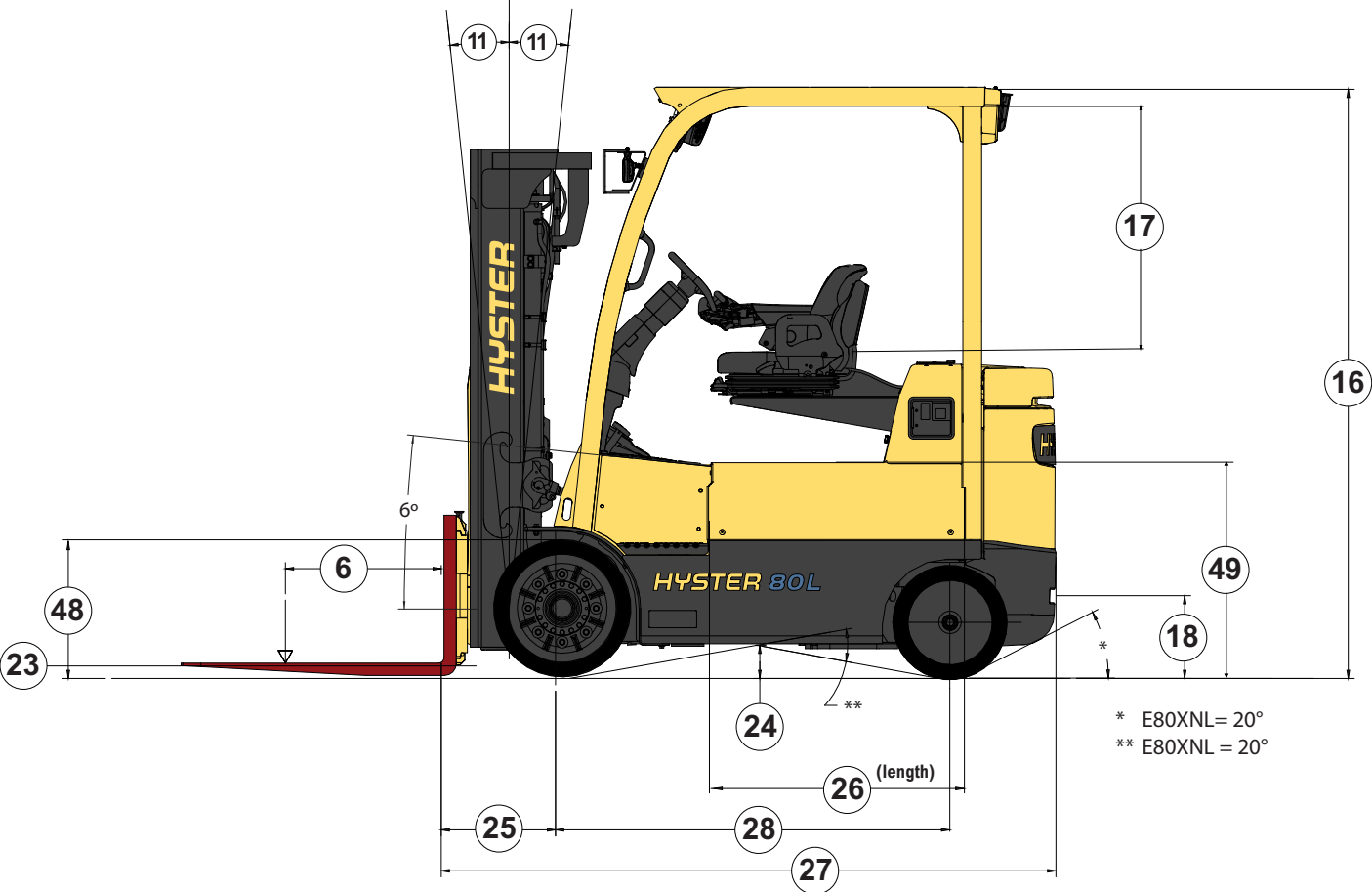


E80XNL DIMENSIONS



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

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# E80XNL SPECIFICATIONS

GENERAL	1	Manufacturer			Hyster	
	2	Model designation			E80XNL	
	3	Power			Electric	
	4	Operation			Sit	
	5	Rated capacity		lb (kg)	8000 (3629)	
	6	Load center		in (mm)	24 (610)	
TIRES/ WHEELS	7	Tire type - cushion, solid, pneumatic, etc.		Drive/steer	Cushion/cushion	
	8	Tire size		Drive/steer	22 x 9 x 16 / 18 x 7 x 12.1	
	9	Wheels - number	X=driven	Drive/steer	2x/2	
DIMENSIONS	10	Tread	Center of tires	Narr dr/wide dr/steer	in (mm)	37/41/38.3 (941/1041/972)
	11	Mast tilt		Std opt	degrees	5F/5B 8F/5B
	12	Mast - lowered height		Std mast	in (mm)	84.1 (2134)
	13	Free lift - top of fork	Std 2-stg limited free lift mast		in (mm)	5 (150)
			Opt 2-stg full free lift mast with/without LBR		in (mm)	35/53 (900/1352)
	14	Lift height - top of fork	Std 2-stg limited free lift mast		in (mm)	120 (3050)
	15	Mast - extended height	Std mast with/without LBR		in (mm)	169/149 (4284/3783)
	16	Overhead guard height	Std/opt/opt flat plate		in (mm)	94/91/87.1 (2388/2311/2212)
	17	Sip to bottom std OHG	Susp at mid-point	Susp/swivel/air-ride	in (mm)	39.0/38.9/38.5 (991/989/979)
	18	Tow pin height	Vertical center of pin		in (mm)	12.7 (324)
	19	Overall width	Standard tread/wide tread		in (mm)	47.2/50 (1200/1270)
	20	Forks	Thickness x width x length		in (mm)	2 x 4.9 x 42 (50 x 125 x 1067)
	21	Standard carriage width		Class III	in (mm)	42 (1067)
	23	Ground clearance	Lowest point	NL/RL	in (mm)	3.8/3.5 (96/90)
	24	Ground clearance	Center of truck	NL/RL	in (mm)	5.3/5.1 (134/130)
	25	Load distance	Center of wheel to face of forks		in (mm)	17.6 (447)
	27	Length to face of forks		Chassis length	in (mm)	100.3 (2548)
	28	Wheelbase			in (mm)	62 (1574)
	29	Right angle stack			in (mm)	154 (3911)
	30	Equal aisle	90° intersecting aisle		in (mm)	83 (2107)
	31	Outside turning radius			in (mm)	88.2 (2240)
WEIGHT	32	Truck weight	With/without battery	NL	lb (kg)	16420 (7448) / 15470 (7017)
	33	Axle loading - drive	Static with max. wt. battery	NL/RL	lb (kg)	7120 (3230) / 20860 (9462)
	34	Axle loading - steer	Static with max. wt. battery	NL/RL	lb (kg)	9340 (4237) / 3300 (1497)
PERFORMANCE					STANDARD PERFORMANCE	
				VOLTS		80
	36	Travel speed	Extended shift off	NL/RL	mph (km/h)	11.7/11.2 (18.8/18)
			Extended shift on	NL/RL	mph (km/h)	10.9/10.8 (17.5/17.4)
	37	Lift speed	Std 2-stg LFL mast	NL/RL	ft/min (m/sec)	118/73 (0.6/0.37)
			Opt 2-stg FFL mast	NL/RL	ft/min (m/sec)	107/66 (0.542/0.334)
			Opt 3-stg FFL mast	NL/RL	ft/min (m/sec)	110/68 (0.56/0.345)
	38	Lower speed	Std 2-stg LFL mast	NL/RL	ft/min (m/sec)	94/104 (0.48/0.53)
			Opt 2-stg FFL mast	NL/RL	ft/min (m/sec)	75/91 (0.38/0.46)
			Opt 3-stg FFL mast	NL/RL	ft/min (m/sec)	77/98 (0.39/0.5)
	39	Gradeability	5 minute rating	NL/RL	%	30.1/18.3
			60 minute rating	NL/RL	%	10.9/7
	40	Drawbar pull	5 minute rating	NL/RL	LBF	4104/3941
			60 minute rating	NL/RL	LBF	1541/1526
	41	Brake	Method of control	Service/parking		Hydraulic/spring applied
		Method of operation	Service/parking		Foot/automatic	
ELECTRIC	42	Battery		Type		Lithium-ion
						STANDARD PERFORMANCE
				VOLTS		80
	43	Traction motor		60 minute rating	hp (kW)	28.2 (21)
	44	Pump motor		15% rating	hp (kW)	48.3 (36)
	45	Traction motor		Type/control method		AC/transistor
	46	Pump motor		Type/control method		AC/transistor
	47	Number of speeds		Traction/pump		Infinitely variable/infinitely variable
OTHER	48	Step height		in (mm)		21.1 (536)
	49	Floor height		Lowest point	in (mm)	33.7 (855)
	50	Attachment relief pressure		psi (bar)		2250 (155)
	51	Auxiliary oil flow	3rd and 4th function	gal/min (l/min)		16 (60)
	52	Sound Level	Measured per ANSI B56.11.5		dB (A)	69/66

The following chargers are approved to use with the E80XNL lithium-ion battery:

- Posicharge ProCORE (80V) - 10kW, 15kW, 20kW or 30kW single cable
  - Ecotec Fast Charge Access (80V): Available in 5kW-28kW (charger input voltage dependent)
- Please contact your local dealer for more information on approved chargers.

Above specifications, unless otherwise listed, are for a standard truck without optional equipment. Right angle stack and equal Intersecting aisle dimensions provided with a 48" long and 40" wide pallet load, allowing zero clearance.

**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.

## BATTERY SPECIFICATIONS AND ONBOARD CHARGING

The battery run time and battery charge time tables are a helpful guide to visualize the truck run time with different batteries in different applications. (The tables are a guide only and not a replacement for a site survey and full power study.)

**Heavy** – High throughput, typically runs full capacity, runs either attachments or has high lifts

**Medium** – High throughput, runs near capacity without attachments or high lifts

**Light** – Lower throughput, runs less than rated capacity without attachments or high lifts

The onboard charging option allows integrated lithium-ion forklifts to be charged via commonly available infrastructure without any facility equipment. Ideal for applications with limited charging options or those with the downtime for slower charging due to lower hour usage.

BATTERY SPECIFICATIONS			
E80XNL BATTERY RUN TIME			
Battery size	Application		
	Heavy	Medium	Light
52.4kWh	5h 45m	8h 0m	11h 0m
43.7kWh	4h 45m	6h 45m	9h 0m
34.9kWh	3h 45m	5h 30m	7h 0m
E80XNL BATTERY CHARGE TIME			
Charger size	Battery size		
	52.4kWh	43.7kWh	34.9kWh
30kW	1h 45m	1h 30m	1h 15m
20kW	2h 45m	2h 15m	1h 45m
15kW	3h 30m	3h 0m	2h 30m
10kW	5h 30m	4h 30m	3h 30m
5kW	10h 30m	8h 45m	7h 0m

*Note: Run time is from 100% to lift-lock out. Charge time is from lift-lock out to 100%.*

ONBOARD CHARGING			
ONBOARD CHARGE TIME			
Charger size	Battery size		
	52.4kWh	43.7kWh	34.9kWh
6kW (240V outlet)	8h 5m	6h 45m	5h 25m
1.4kW (120V outlet)	34h 30m	28h 45m	23h 0m
BATTERY RECHARGE TIME FOLLOWING 1 HOUR OF OPERATION			
Charger size	Application		
	Heavy	Medium	Light
6kW (240V outlet)	1h 30m	1h 10m	0h 50m
1.4kW (120V outlet)	6h 20m	4h 30m	3h 20m

# E80XNL MAST DIMENSIONS

Maximum fork height (TOF) +	Overall lowered height	Overall extended height w/load backrest	Overall extended height w/o load backrest	Free-lift (TOF) w/ load backrest	Free-lift (TOF) w/o load backrest
in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
<b>2-STAGE LIMITED FREE-LIFT (LFL) MAST</b>					
120 (3050)	84 (2134)	176 (4455)	149 (3783)	5 (150)	5 (150)
143 (3650)	96 (2434)	193 (4884)	173 (4383)	5 (150)	5 (150)
<b>2-STAGE FULL FREE-LIFT (FFL) MAST</b>					
121 (3075)	84 (2134)	170 (4309)	152 (3857)	35 (900)	53 (1352)
144 (3675)	96 (2434)	194 (4909)	176 (4457)	47 (1200)	65 (1652)
<b>3-STAGE FULL FREE-LIFT (FFL) MAST</b>					
173 (4415)	84 (2134)	223 (5649)	205 (5197)	35 (900)	53 (1352)
185 (4715)	88 (2234)	235 (5949)	217 (5497)	39 (1000)	57 (1452)
194 (4950)	92 (2334)	244 (6184)	226 (5732)	43 (1100)	61 (1552)
218 (5550)	100 (2534)	268 (6784)	250 (6332)	51 (1300)	69 (1752)

## FEATURES AND OPTIONS


PERFORMANCE	STD	OPT
80-volt electrical system	x	
• 83.2V battery @630 Ah	x	
• 83.2V battery @525 Ah		x
• 83.2V battery @420 Ah		x
AC traction and pump motors (completely brushless)	x	
Transistor drive and pump control	x	
Advanced VSM (Vehicle System Manager)	x	
Regenerative braking	x	
Onboard charging		x
DRIVE	STD	OPT
Smooth tread rubber drive tire and steer tire	x	
Non-marking, rubber, or lug tread tires		x
Wide tread tires		x
LIFT	STD	OPT
2-stage limited free lift (LFL) mast with maximum fork height of 120" (3050mm) (E80XNL)	x	
5° forward and 5° back mast tilt	x	
2-stage full free lift mast		x
3-stage full free lift mast		x
8° forward/5° back tilt		x
HANDLING	STD	OPT
42" (1067mm) wide hook-type carriage with 48" (1219mm) high load backrest extension	x	
42" (1067mm) long forks	x	
48" (1220mm) wide hook type carriage w/ 48" high load backrest extension		x
42" (1067mm) wide integral side shift (E80XNL)		x
48" (1220mm) integral sideshift carriage		x
Multiple fork lengths		x
Return to set tilt		x
Hydraulic attachment extension tubes with or without quick disconnect fittings		x
Load weight indicator		x
Accumulator		x
ERGONOMICS	STD	OPT
Foot directional control pedal	x	
TouchPoint mini-levers	x	
Steering wheel w/integral spinner knob	x	
Full suspension vinyl seat	x	
Black, non-cinch seat belt with Emergency Locking Retractor (ELR)	x	
Park brake	x	
Power assist braking	x	
On-demand hydrostatic power-assist steering	x	
Auto Deceleration System (ADS)	x	
Multifunction display (high mount)	x	
Easy ingress/egress with low step height and contoured handhold	x	
Operator convenience station	x	
Adjustable tilt steering column	x	
Operator Presence System (OPS)	x	
Cushioned floormat	x	
Seatside power disconnect button	x	
Full-suspension cloth seat		x
Air-ride seat (vinyl or cloth)		x

ERGONOMICS (CONTINUED)	STD	OPT
Full-suspension swivel seat (vinyl or cloth)		x
Seatside directional control		x
Telescoping steering column with tilt memory		x
LED dome/reading light		x
Rear drive handle with horn button		x
Dual rear view mirrors		x
Panoramic rear view mirror		x
Red, high-visibility, non-cinch seat belt with or without interlock		x
Low mount display		x
OPERATION	STD	OPT
Standard environmental construction	x	
Key switch start	x	
94" grid style overhead guard	x	
3-function hydraulic control valve	x	
Integrated CANbus communication	x	
Static strap	x	
Tow pin	x	
Hyster Stability System (HSS®)	x	
Cooler/freezer package – operating temperatures: -20°F to +120° F		x
4-function hydraulic control valve		x
Horizontal Battery Extraction (rollers)		x
Keyless start (with auxiliary key switch)		x
LED brake/tail/back-up light packages		x
LED and halogen work light packages		x
Key switch controlled lights		x
Audible alarm - reverse operation (manually adjustable to 87, 97 or 102 dB)		x
Visible amber strobe light - continuous activated, overhead guard mounted		x
Fire extinguisher - 2.5lb dry chemical		x
Impact monitor with programmable shutdown		x
Operator password start interlock		x
Operator daily checklist		x
System monitor - hydraulic low fluid level indicator and hydraulic filter service indicator		x
Programmable maintenance reminder		x
12-volt auxiliary power supply		x
Auxiliary DC-DC converter		x
91" grid style overhead guard		x
87" flat plate overhead guard		x
Hyster Reaction™		x
Battery cooling fan		x
Vented side paneling		x
SUPPLEMENTAL	STD	OPT
Operating manual	x	
12 month/2,000 hour full truck warranty	x	
36 month/6,000 hour powertrain warranty	x	
84 month/12,000 hours factory installed integrated lithium-ion battery warranty	x	
ENERGY SYSTEM	STD	OPT
Integrated lithium-ion	x	





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