

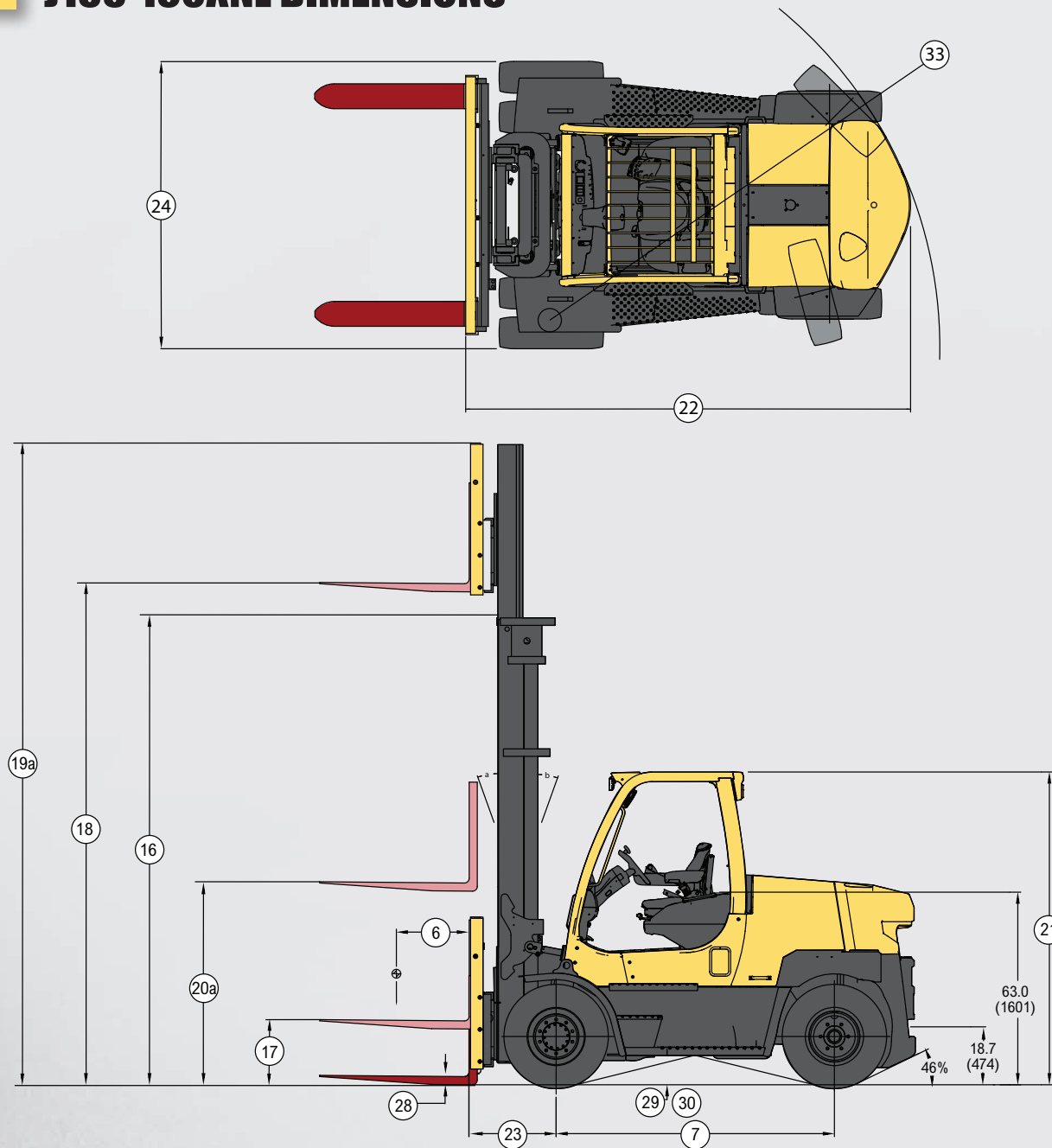


**STRONG PARTNERS.
TOUGH TRUCKS.™**

J155-190XNL INTEGRATED LITHIUM-ION TECHNICAL GUIDE

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> J155-190XNL DIMENSIONS



STANDARD LIFT SPECIFICATIONS

Maximum fork height (TOF) in (mm)		Overall lowered height in (mm)		Overall extended highest w / load backrest in (mm)		Overall extended highest w / o load backrest in (mm)		Free-lift (TOF) w / load backrest in (mm)		Free-lift (TOF) w / o load backrest in (mm)	
J155XNSL	J170XNSL, J175XNL36, J190XNL	J155XNSL	J170XNSL, J175XNL36, J190XNL	J155XNSL	J170XNSL, J175XNL36, J190XNL	J155XNSL	J170XNSL, J175XNL36, J190XNL	J155XNSL	J170XNSL, J175XNL36, J190XNL	J155XNSL	J170XNSL, J175XNL36, J190XNL
2-STAGE LFL MAST											
118 (3000)	121 (3065)	100 (2540)	107 (2715)	172 (4354)	171 (4347)	166 (4195)	167 (4239)	6 (160)	0 (0)	6 (160)	0 (0)
133 (3400)	140 (3565)	108 (2740)	117 (2965)	188 (4754)	191 (4847)	181 (4595)	187 (4739)	6 (160)	0 (0)	6 (160)	0 (0)
173 (4400)	179 (4565)	128 (3240)	137 (3465)	227 (5754)	230.2 (5847)	221 (5595)	226 (5739)	6 (160)	0 (0)	6 (160)	0 (0)
212 (5400)	219 (5565)	148 (3740)	156 (3965)	266 (6754)	267 (6847)	260 (6595)	265 (6739)	6 (160)	0 (0)	6 (160)	0 (0)
236 (6000)	238 (6065)	164 (4165)	166 (4215)	292 (7417)	289 (7347)	277 (7040)	265 (6739)	6 (160)	0 (0)	6 (160)	0 (0)
3-STAGE FFL MAST											
185 (4700)	181 (4615)	102 (2570)	107 (2705)	239 (6054)	232 (5897)	230 (5830)	228 (5791)	47 (1216)	56 (1420)	56 (1440)	60 (1526)
220 (5600)	217 (5515)	113 (2870)	118 (3005)	274 (6954)	268 (6797)	265 (6730)	263 (6691)	59 (1516)	68 (1720)	68 (1740)	72 (1826)
244 (6200)	234 (5965)	123 (3120)	125 (3115)	298 (7554)	285 (7247)	289 (7330)	281 (7141)	69 (1766)	74 (1870)	78 (1990)	78 (1976)
	258 (6565)		132 (3355)		309 (7847)		305 (7741)		82 (2070)		86 (2176)

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

J155-190XNL SPECIFICATIONS <

GENERAL	1	Manufacturer		Hyster	Hyster	Hyster	Hyster
	2	Model		J155XNL	J170XNL	J175XNL36	J190XNL
	3	Power type		Electric	Electric	Electric	Electric
	4	Operator type		Seated rider	Seated rider	Seated rider	Seated rider
	5	Rated capacity	lb (kg)	15,500 (7,000)	17,000 (8,000)	17,500 (8,000)	19,000 (9,000)
	6	Load center, distance	in (mm)	24 (600)	24 (600)	36 (900)	24 (600)
	7	Wheelbase	in (mm)	88 (2235)	88 (2235)	96.5 (2450)	96.5 (2450)
WT.	8	Weight, standard truck RL / NL	lb (kg)	39470 (17903) / 24035 (10902)	44048 (19980) / 26410 (11979)	44677 (20265) / 27040 (12265)	45245 (20523) / 25407 (11524)
	9	Axle loading, static front / rear RL	lb (kg)	33495 (15193) / 5975 (2710)	37891 (17187) / 6158 (2793)	40627 (18428) / 4048 (1836)	40654 (18440) / 4593 (2083)
	10	Axle loading, static front / rear NL	lb (kg)	9714 (4406) / 14322 (6496)	10677 (4843) / 15305 (6942)	11736 (5323) / 15305 (6942)	10986 (4983) / 14421 (6541)
TIRES	11	Tire type - cushion, solid, pneumatic		Pneumatic	Pneumatic	Pneumatic	Pneumatic
	12	Tire size, front / rear		8.25x15 14PR / 8.25x15 14PR	8.25x15 14PR / 8.25x15 14PR	8.25x15 14PR / 8.25x15 14PR	8.25x15 14PR / 8.25x15 14PR
	13	Wheels, number - front / rear (X = driven)		4X / 2	4X / 2	4X / 2	4X / 2
	14	Track width, front / rear	in (mm)	72.7 (1847) / 60.5 (1536)	72.7 (1847) / 60.5 (1536)	78.9 (2003) / 60.4 (1535)	78.9 (2003) / 60.4 (1535)
DIMENSIONS	15	Mast tilt, forward / backward	degrees	5/10 ²	5/9 ²	5/9 ²	5/9 ²
	16	Height, standard mast - lowered	in (mm)	96.7 (2456)	106.8 (2712)	106.8 (2712)	106.8 (2712)
	17	Std free lift height (TOF) (rounded down)	in (mm)	3.9 (100)	0 (0)	0 (0)	0 (0)
	18	Lift height, w/LBR (TOF) (rounded down)	in (mm)	118 (3000)	121 (3065)	121 (3065)	121 (3065)
	19a	Height, std mast - extended w/o LBR (rounded up)	in (mm)	159.1 (4040)	166.9 (4239)	166.9 (4239)	166.9 (4239)
	19b	Height, std mast - extended w/ LBR (rounded up)	in (mm)	171.3 (4350)	171.2 (4337)	171.2 (4337)	171.2 (4337)
	20a	Opt full free lift w/ LBR (TOF) (rounded down)	in (mm)	43 (1098) ¹	53 (1355) ¹	53 (1355) ¹	53 (1355) ¹
	20b	Opt full free lift w/o LBR (TOF) (rounded down)	in (mm)	56 (1425) ¹	57.5 (1461) ¹	57.5 (1461) ¹	57.5 (1461) ¹
	21a	Height, std overhead guard (high) (rounded up)	in (mm)	100 (2531)	100 (2531)	100 (2531)	100 (2531)
	21b	Height, std overhead guard (cab) (rounded up)	in (mm)	101 (2549)	101 (2549)	101 (2549)	101 (2549)
	22	Overall length (to face of forks) ³	in (mm)	137.6 (3495)	140.6 (3570)	159 (4038)	156 (3958)
	23	Length, center of wheels to face of forks ³	in (mm)	24 (609)	24.2 (614)	24.2 (614)	24.2 (614)
	24	Overall width	in (mm)	82.0 (2082)	82.0 (2082)	88 (2239)	88 (2239)
	25	Std forks, thickness x width x length	in (mm)	2.5 x 6.0 x 47 (60 x 150 x 1200)	2.5 x 7.9 x 47 (65 x 200 x 1200)	2.5 x 7.9 x 47 (65 x 200 x 1200)	2.5 x 7.9 x 47 (65 x 200 x 1200)
	26a	Std fork spread, minimum inside dimensions	in (mm)	6.2 (160)	3 (75)	3 (75)	3 (75)
	26b	Std fork spread, maximum outside dimensions	in (mm)	73.8 (1876)	82.5 (2100)	82.5 (2100)	82.5 (2100)
	27	Std carriage width	in (mm)	78 (1981)	80 (2030)	80 (2030)	80 (2030)
	28	Ground clearance under mast, RL	in (mm)	4.9 (125)	6.8 (175)	6.8 (175)	6.8 (175)
	29	Ground clearance, center of wheelbase	in (mm)	9.7 (246)	9.7 (246)	10.0 (253)	10.0 (253)
	30	Step height	in (mm)	12.6 (321)	12.6 (321)	12.6 (321)	12.6 (321)
	31a	Aisle wth, right angle stack (pallet w=42in, l=48in)	in (mm)	193.2 (4908)	196 (4978)	221 (5613)	218.2 (5542)
	31b	Aisle wth, right angle stack (add length of load)	in (mm)	145.2 (3688)	148 (3760)	173 (4394)	170.2 (4323)
	32	Equal aisle, 90-degree intersecting aisle (pallet w=42in, l=48in)	in (mm)	113.0 (2871.2)	113.1 (2871.9)	122.9 (3122)	121.3 (3081)
	33	Turning radius, minimum outside (OTR) ⁴	in (mm)	121.3 (3080)	123.8 (3145)	149 (3794)	147 (3723)
	34	Turning radius, minimum inside (ITR) ⁵	in (mm)	-3.5 (-90)	-3.5 (-90)	14.3 (362)	14.3 (362)
PERFORMANCE	35	Travel speed, RL/NL ⁶	mph (km/h)	14.9 (24) / 14.9 (24)	14.9 (24) / 14.9 (24)	13 (21) / 13 (21)	13 (21) / 13 (21)
	36a	Lift speed, standard 2-stage LFL RL / NL	ft / min (m/s)	84.6 (0.43) / 129.9 (0.66)	78.7 (0.40) / 90.5 (0.46)	62.9 (0.32) / 80.7 (0.41)	70.8 (0.36) / 90.5 (0.46)
	36b	Lift speed, optional 3-stage FFL RL / NL	ft / min (m/s)	78.7 (0.40) / 129.9 (0.66)	76.7 (0.39) / 90.5 (0.46)	62.9 (0.32) / 80.7 (0.41)	68.8 (0.35) / 90.5 (0.46)
	37a	Lowering speed, std 2-stage LFL RL / NL	ft / min (m/s)	114.1 (0.58) / 104.3 (0.53)	80.7 (0.41) / 72.8 (0.37)	74.8 (0.38) / 64.9 (0.33)	64.9 (0.33) / 64.9 (0.33)
	37b	Lowering speed, optional 3-stage FFL RL / NL	ft / min (m/s)	104.3 (0.53) / 80.7 (0.41)	76.7 (0.39) / 64.9 (0.33)	74.8 (0.38) / 64.9 (0.33)	74.8 (0.38) / 64.9 (0.33)
	38a	Drawbar pull RL/NL @ 1mph (1.6kph) ⁶	ft-lb (N)	10986 (48871) / 5824 (25907)	10986 (48871) / 6408 (28506)	11000 (48933) / 7043 (31331)	11000 (48933) / 6593 (29330)
	38b	Maximum drawbar pull RL / NL ⁶	ft-lb (N)	11138 (49547) / 5824 (25907)	11138 (49547) / 6408 (28506)	11112 (49430) / 7043 (31331)	(49430) / 6593 (29330)
	39a	Gradeability RL/NL @ 1mph (1.6kph) ⁶	%	30 / 24	26 / 24	26 / 26	26 / 26
	39b	Maximum gradeability RL / NL ⁶	%	30 / 24	27 / 24	26 / 26	26 / 26
	40	Service brake - method of control / operation		Foot / hydraulic	Foot / hydraulic	Foot / hydraulic	Foot / hydraulic
POWERTRAIN	41	Park brake - method of control / operation		Hand / mechanical	Hand / mechanical	Hand / mechanical	Hand / mechanical
	42	Battery type		Integrated Li-ion	Integrated Li-ion	Integrated Li-ion	Integrated Li-ion
	43	Battery voltage / capacity ⁷	V/Ahr	350/192	350/192	350/192	350/192
	44	Traction motor type		Permanent magnet	Permanent magnet	Permanent magnet	Permanent magnet
	45	Pump motor type		Permanent magnet	Permanent magnet	Permanent magnet	Permanent magnet
	46	Traction motor power (S2 60 minute rating)	hp (kW)	60.3 hp (45kW)	60.3 hp (45kW)	60.3 hp (45kW)	60.3 hp (45kW)
	47	Pump motor power (S2 60 minute rating)	hp (kW)	80.4 hp (60kW)	80.4 hp (60kW)	80.4 hp (60kW)	80.4 hp (60kW)
	48	Auxiliary hydraulic pressure relief for attachments	PSI (bar)	2509 (173)	2509 (173)	2509 (173)	2509 (173)
	49	Auxiliary hydraulic flow for attachments	gal/min (l/min)	24.4 (92.7)	24.4 (92.7)	24.4 (92.7)	24.4 (92.7)
	50	Sound level (with / without cab)	dB(A) LPAZ	68/67	68/67	68/67	68/67
OTHER							

- (1) Measured with lowest offered height 3 stage FFL Mast
(2) Back tilt is limited to 6 degrees with some mast options
(3) Measured with standard mast and carriage
(4) Measured with Turn Assist System equipped. OTR without Turn Assist System is J155XNSL: 129.3 in (3282mm); J170XNSL: 131.8 in (3347mm)
(5) Measured with Turn Assist System equipped. ITR without Turn Assist System is J155XNSL: 9.1 in (230mm); J170XNSL: 9.1 in (230mm)
(6) Extended shift off (max performance)
(7) Nominal values

NL = no load, RL = rated load

The BorgWarner 50kW charger is approved for use with the J155-190XNL series trucks. Please see the J155-190XNL product page on hyster.com or contact your Hyster dealer for more information.

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.

STANDARD EQUIPMENT

350 volt integrated lithium-ion battery with battery management system

Permanent magnet AC traction and pump motors

High voltage traction and pump motor controllers

Liquid cooling system for motors and controllers

Oil-cooled wet disc brakes

Turn Assist System (155 and 170 models only)

Seatside directional control

Mast:

- 2-stage mast with maximum fork height of 118" (3000 mm) (155 only)
- 2-stage mast with maximum fork height of 121" (3065 mm) (170, 175, 190)

Carriage:

- 78" (1981 mm) wide hook-type carriage with 48" (1219 mm) tall load backrest extension (155 only)
- 80" (2030 mm) wide hook-type carriage with 48" (1219 mm) tall load backrest extension (170, 175, 190)
- 47" (1200 mm) long hook type standard taper forks

Tilt:

- 5° forward / 10° backward mast tilt (155 only)
- 5° forward / 9° backward mast tilt (170, 175, 190)

Multifunction display:

- 3 function (1 aux.) hydraulic valve for non-clamping attachments
- LCD backlit screen
- Battery state of charge indicator with lift interrupt
- Four operator selectable, programmable performance modes
- System status indicator icons & digital clock
- Fault indicator (audible & visible)
- Hour meters – traction motor, hydraulic pump motor, and truck

Single brake pedal

Air suspension vinyl seat with black seat belt

Electronic horn

Adjustable steer column

12" steering wheel with wheel spinner knob

Rubber floor mat

Touchpoint mini-levers with fully adjustable armrest

Seat side power disconnect button

100" (2531mm) tall overhead guard

Dual drive tires, pneumatic 8.25 x 15-14PR

Steer tires, pneumatic 8.25 x 15-14PR

Auto deceleration system with regenerative motor braking

Traction speed limiting

Operator Presence System (OPS)

Keyswitch start

Mechanical park brake

Fully integrated CANbus communication

Operating manual

OPTIONAL EQUIPMENT

Full steel cab, including the following:

- Front and rear wiper
- Full light package
- Integral heater
- Removable doors
- Operator dome light
- Fan

Hydraulic accumulator

Keyless start (with auxiliary key switch)

Monotrol pedal

Return to set tilt

Rear drive handle with horn button

Air suspension cloth seat

Hi-visibility seat belt with or without interlock

Impact monitoring with shutdown

Load weight display

Operator pre-shift check list

Operator password protection

Audible reverse alarm

Overhead guard mounted amber LED strobe light

LED work light package

Brake / tail / backup light package

Multiple mast height options

5° forward / 6° backward mast tilt

4 function (2 aux.) hydraulic valve

Multiple drive and steer tire options

Hydraulic clamping function

Attachment extension tubes

Hang-on side shift (155 only)

Hang-on side shift fork positioner (155 only)

Integral side shift

Integral side shift fork positioner (170, 175, 190)

Multiple fork types and lengths

Dual side view mirrors

Fire extinguisher

Steering wheel without spinner knob

Telemetry system (3 levels)

Rear view display (155 and 170 only)



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Part No. J155-190XNL/TG
8/2020 Litho in U.S.A.

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HYSTER® J155-190XNL

POWERED BY LITHIUM-ION TECHNOLOGY

What if you could reduce cost of operation and eliminate emissions without sacrificing the power of diesel? Introducing the Hyster® J155-190XNL high-capacity forklift powered by integrated lithium-ion technology that gives you ICE-like performance.

The Class 1 pneumatic J155-170XNSL, J175XNL36 and J190XNL lift trucks are designed to satisfy a need for a zero emission alternative in a high capacity range for both indoor and outdoor operation.

Lithium-ion power is an ideal solution for heavy-duty applications due to the sealed battery requiring no battery maintenance, faster charging, and longer overall battery cycle life when compared to typical lead-acid batteries.



WHY LITHIUM-ION?

**ZERO MAINTENANCE:
NO MORE...**



**LESS THAN
— 90 —
MINUTES**
**FULL CHARGE TIME
WITH REQUIRED CHARGER**

MORE 
ENERGY EFFICIENT

FDA COMPLIANT
ZERO EMISSIONS TECHNOLOGY
WITH NO GASSING

The J155-190XNL is the first product family lineup of counterbalanced 15,500-19,000 lb. 350-volt integrated lithium-ion power trucks to the lift truck industry.

1 HIGH VOLTAGE BATTERY

- Electric truck that delivers ICE-like performance
- Zero emissions and no maintenance
- More energy efficient than lead-acid batteries
- Truck is equipped with full suite of low state of charge safety features
- With optional telemetry system, battery information can be uploaded to the portal for customers/dealers to view

2 MOTOR MODULE

- High powered, efficient motors and controllers deliver ICE-like truck performance
- Liquid cooled for consistent, stable temperature control

3 ERGONOMICS

- Air-Ride Seats and TouchPoint™ mini-lever hydraulic controls offer added operator comfort
- With no ICE engine running, truck noise levels are much quieter and there are no emissions

4 ENERGY EFFICIENT

- Fast charging times – battery will fully charge in less than 90 minutes
- Truck requires 50kW charger**
- Battery is 90-95% efficient during both operation and charging
- 90% efficient permanent magnet motors

5 LESS PERIODIC MAINTENANCE & SERVICE

- Replacing the ICE drivetrain with electric means reduced serviceable parts for periodic maintenance
- Uses proven Hyster electric rider VSM and display



Model		J155XNL	J170XNL	J175XNL36	J190XNL
Power type		Electric	Electric	Electric	Electric
Operator type		Seated rider	Seated rider	Seated rider	Seated rider
Rated capacity	lb (kg)	15,500 (7,000)	17,000 (8,000)	17,500 (8,000)	19,000 (9,000)
Load center, distance	in (mm)	24 (600)	24 (600)	36 (900)	24 (600)
Battery type		Integrated Li-ion	Integrated Li-ion	Integrated Li-ion	Integrated Li-ion
Battery voltage / capacity ¹	V/Ahr	350/192	350/192	350/192	350/192
Traction motor type		Permanent magnet	Permanent magnet	Permanent magnet	Permanent magnet
Pump motor type		Permanent magnet	Permanent magnet	Permanent magnet	Permanent magnet
Traction motor power (S2 60 minute rating)	hp (kW)	60.3 hp (45kW)	60.3 hp (45kW)	60.3 hp (45kW)	60.3 hp (45kW)
Pump motor power (S2 60 minute rating)	hp (kW)	80.4 hp (60kW)	80.4 hp (60kW)	80.4 hp (60kW)	80.4 hp (60kW)
Sound level (with / without cab)	dB(A) LPAZ	68/67	68/67	68/67	68/67
Maximum travel speed, rated load	mph	14.9	14.9	13	13
Maximum lift speed, rated load	ft / min	84.6	78.7	62.9	70.8



¹ - Nominal values

* High Performance Motors

** See your authorized Hyster® dealer for details on the specific required battery charger.

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