



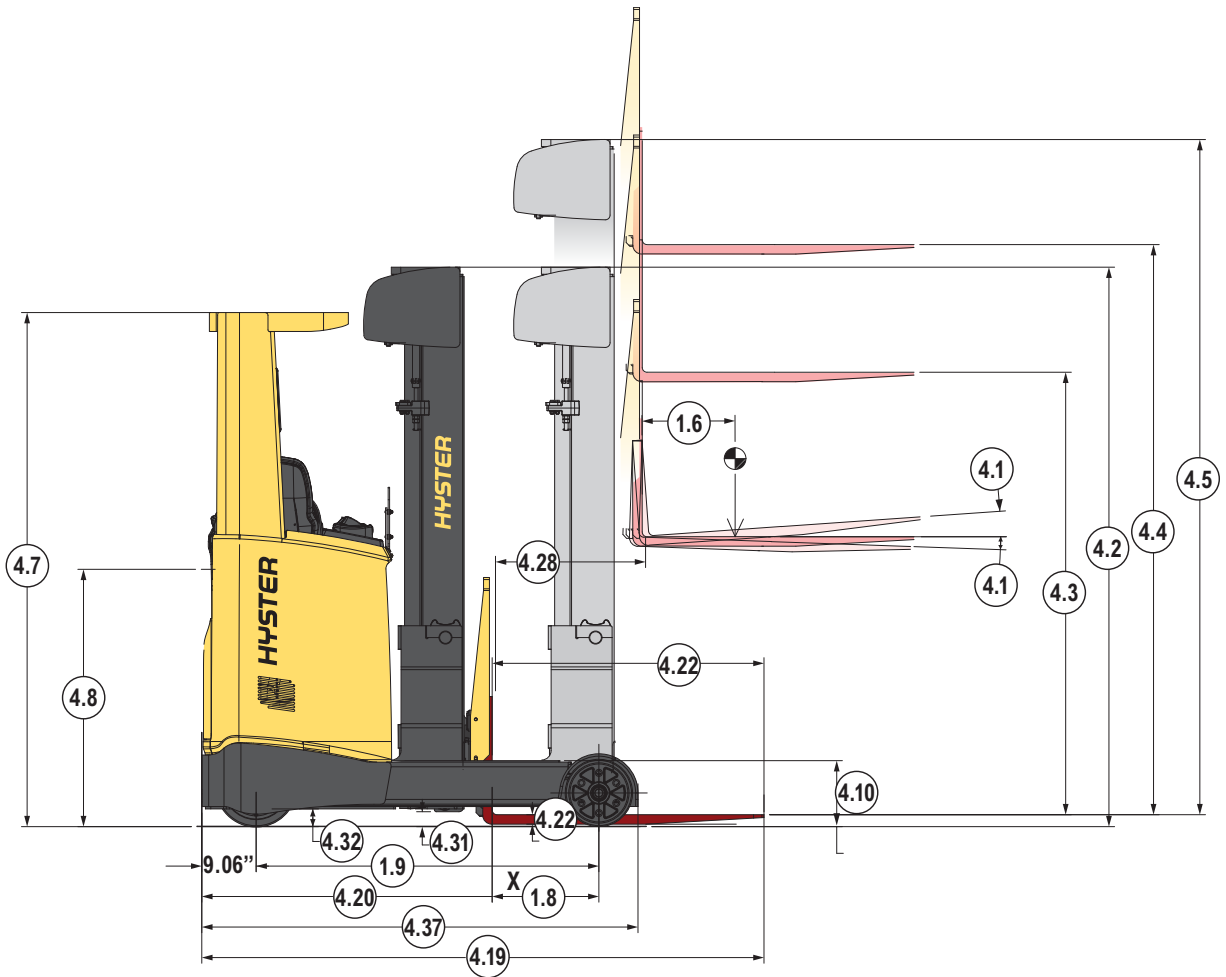
# R1.4-1.6 406 SERIES

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**MOVING MAST INDOOR REACH TRUCK**  
**PRODUCT TECHNICAL GUIDE**



# DIMENSIONS

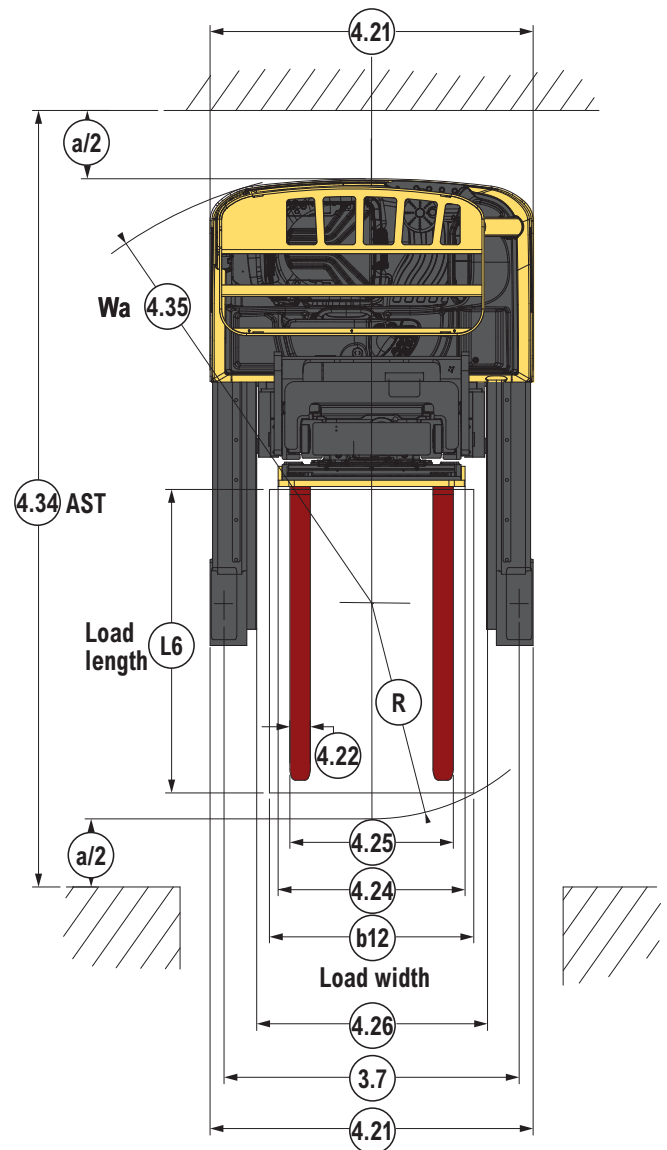
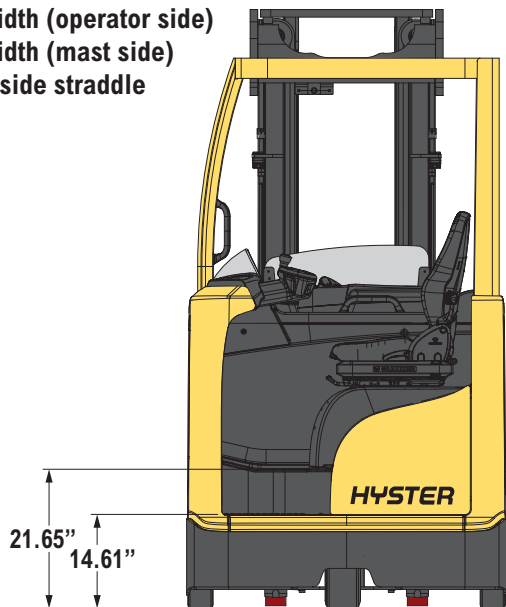


All AST dims provided include 8" of total clearance. Circled dimensions correspond to the line numbers on the tabulated chart inside the technical guide. Dimensions are in inches (millimeters).

$$R = \sqrt{(L6 - X)^2 + (b12/2)^2}$$

**a** = Clearance = 8"  
**L6** = Load length  
**b12** = Load width  
**AST** =  $Wa + R + a$   
**AST** = Right Angle Stack

**B1** = Overall width (operator side)  
**B2** = Overall width (mast side)  
**B4** = Overall inside straddle



All AST dims provided include 8" of total clearance. Circled dimensions correspond to the line numbers on the tabulated chart inside the technical guide. Dimensions are in inches (millimeters).

# SPECIFICATIONS

		Hyster			
GENERAL	1.1	Manufacturer			
	1.2	Manufacturer's type designation	R1.4 406   R1.6 406		
	1.3	Drive: electric, diesel, gasoline, LPG	Electric (battery)		
	1.4	Operator type	Seated		
	1.5	Rated capacity/rated load	3000 (1400) lb (kg)	3500 (1600)	
	1.6	Load center distance	24 (600) in (mm)		
WEIGHT	1.8	Load distance, center of drive axle to fork	15.83 (402) in (mm)	17.80 (452)	
	1.9	Wheelbase	55.12 (1400) in (mm)	57.09 (1450)	
	2.1	Service weight	6861 (3112) lb (kg)	6971 (3162)	
	2.3	Axle loading, NL front/rear <sup>4</sup>	4359/2502 (1977/1135) lb (kg)	4449/2522 (2018/1144)	
	2.4	Axle loading fork advanced, RL front/rear	1504/8444 (682/3830) lb (kg)	1325/9176 (601/4162)	
WHLSTIRES	2.5	Axle loading fork retracted, RL front/rear	3920/6030 (1778/2735) lb (kg)	4085/6413 (1853/2909)	
	3.1	Tires, front/rear	NDIItthane/NDIItthane		
	3.2	Tire size, front	13.5 x 5.5 (343 x 140) in (mm)		
	3.3	Tire size, rear	11.2 x 3.9 (285 x 100) in (mm)		
	3.5	Wheels, number front/rear (x = driven wheels)	1x/2		
DIMENSIONS	3.7	Tread, rear	45.47 (1155) in (mm)		
	4.1	Tilt of mast/fork carriage forward/backward	2/4 degrees		
	4.2	Height of mast, lowered	See mast tables in (mm)		
	4.3	Free lift	See mast tables in (mm)		
	4.4	Lift	See mast tables in (mm)		
	4.5	Height, mast extended <sup>1</sup>	See mast tables in (mm)		
	4.7	Height of overhead guard (cabin) <sup>2,9</sup>	85.63 (2175) in (mm)		
	4.8	Seat height relating to SIP	42.60 (1082) in (mm)		
	4.10	Height of wheel arms	12.13 (308) in (mm)		
	4.19	Overall length	90.51 (2299) in (mm)		
	4.20	Length to face of forks	48.39 (1229) in (mm)		
	4.21	Overall width <sup>3</sup>	49.80 (1265) in (mm)		
	4.22	Fork dimensions DIN ISO 2331	1.4/3.9/42 (35/100/1070) in (mm)	1.4/3.9/42 (35/100/1070)	
	4.23	Fork carriage ISO 2328, class/type A, B	2A		
	4.24	Fork carriage width	27.56 (700) in (mm)		
	4.25	Distance between fork arms, min/max <sup>7</sup>	9.45/25.98 (240/660) in (mm)	9.45/25.98 (240/660)	
	4.26	Distance between wheel arms/loading surfaces	35.43 (900) in (mm)		
	4.28	Reach distance	23.03 (585) in (mm)	25.0 (635)	
	PERFORMANCE	4.31	Ground clearance, RL, below mast	2.95 (75) in (mm)	
		4.32	Ground clearance, center of wheelbase	2.95 (75) in (mm)	
4.34.1		Aisle width for pallets 39.3"x47.2" (1000 mm x 1200 mm) across - (L6 x b12)	107.0 (2718) - See charts in (mm)	107.5 (2731) - See charts	
4.34.2		Aisle width for pallets 31.5"x47.2" (800 mm x 1200 mm) lengthwise - (b12 x L6)	108.8 (2764) - See charts in (mm)	108.9 (2767) - See charts	
4.35		Turning radius (Wa)	65.79 (1671) in (mm)	67.64 (1718)	
4.37		Length across wheel arms	70.67 (1795) in (mm)	72.64 (1845)	
4.42		Step height (from ground to running board)	21.65 (550) in (mm)		
4.43		Step height (between intermediate steps between running board and floor)	14.61 (371) in (mm)		
5.1		Travel speed, RL   NL	6.8/6.8 (11/11) mph (km/h)		
5.1.1		Travel speed, RL   NL, backwards	6.8/6.8 (11/11) mph (km/h)		
ELECTRIC	5.2	Lift speed, RL   NL	72.8/124 (0.37/0.63) ft/min (m/s)		
	5.3	Lowering speed, RL/NL	108.3 (0.55/0.55) ft/min (m/s)		
	5.4	Reaching speed, RL/NL	29.5/29.5 (0.15/0.15) ft/min (m/s)		
	5.7	Gradeability, RL/NL <sup>6,10</sup>	10/15 %		
	5.8	Max. gradeability RL/NL <sup>10</sup>	10/15 %		
	5.10	Service brake	Electric		
	6.1	Drive motor, S2 60 minute rating	5.4 kW		
	6.2	Lift motor, S3 15% rating	9.9 kW		
	6.4	Battery voltage/nominal capacity	48/420 <sup>5</sup> (V)/(Ah)		
	6.5	Battery weight <sup>8</sup>	1653 (750) lb (kg)		
OTHER	8.1	Type of drive unit	AC		
	10.1	Operating pressure for attachments	180 bar		
	10.2	Oil volume for attachment	20 l/min		
	10.7	Sound pressure level at the driver's seat	< 69.7 dB(A)		

1 With load backrest add 20" (R1.4 - R1.6).

2 With beacon add 4.73".

3 With load wheels lateral covers: 50.78" (R1.4 - R1.6).

4 Forks retracted.

5 See battery tables.

6 Values in brackets { } are optional.

7 Side shift stroke is +/-2.95" on all trucks.

8 These values may vary of +/- 5%.

9 With PAL side line lights add 5.32"; With double work light to front add 8.66"

10 Gradeability grades based on motor thermal capacity, torque available and brake requirements

† NOTE: Performance specifications/ratings are for truck equipped as described under standard equipment in this specification sheet. Performance specifications are affected by the condition of the vehicle and how it is equipped, as well as by the nature and condition of the operating area. Specifications are subject to change and the proposed application should be discussed with your authorized Hyster® dealer.

†† All values are nominal values and are subject to tolerances. For further information on this dimension, please contact your local Hyster® dealer.

Above specifications, unless otherwise listed, are for a standard truck without optional equipment. Hyster® products are subject to change without notice. Lift trucks illustrated may feature optional equipment. See truck dimensions for batteries chart.

RL = Rated Load, NL = No Load

# MAST AND BATTERY SPECIFICATIONS

## R1.4-1.6 406 - MAST DETAILS, 3-STAGE FULL FREE LIFT

Model	Lift (4.4)	Free lift (4.3)	Height of mast lowered (4.2)	Height of mast extended w/o LBR (4.5) <sup>1</sup>
	in (mm)	in (mm)	in (mm)	in (mm)
R1.4-1.6 406	216 (5500)	71 (1820)	94 (2367)	239 (6063)
	236 (6000)	78 (1992)	100 (2539)	259 (6563)
	255 (6500)	85 (2164)	107 (2711)	279 (7063)
	295 (7500)	98 (2508)	121 (3055)	318 (8063)
	305 (7750)	102 (2594)	124 (3141)	328 (8313)
	314 (8000)	105 (2680)	128 (3227)	338 (8563)
	334 (8500)	112 (2852)	134 (3399)	357 (9063)
	374 (9500)	125 (3196)	148 (3753)	397 (10063)
413 (10500)	139 (3540)	162 (4097)	436 (11063)	

<sup>1</sup> With load backrest 39.37" height, add 20" ; with load backrest 59.06" height, add 39.69".

## R1.4 406 TRUCK DIMENSIONS FOR BATTERIES

Item	Description	Unit	15.81 (402)	12.97 (330)	15.81 (402)	12.97 (330)	10.14 (258)	10.14 (258)
1.8	Load distance, center of drive axle to fork	in (mm)	15.81 (402)	12.97 (330)	15.81 (402)	12.97 (330)	10.14 (258)	10.14 (258)
1.9	Wheelbase	in (mm)	55.12 (1400)	55.12 (1400)	55.12 (1400)	55.12 (1400)	55.12 (1400)	55.12 (1400)
2.1	Service weight	lb (kg)	6861 (3112)	7295 (3309)	6861 (3112)	7319 (3320)	7705 (3495)	7807 (3541)
2.3	Axle loading, NL front/rear <sup>5</sup>	lb (kg)	4359/2502 (1977/1135)	4464/2833 (2025/1285)	4359/2502 (1977/1135)	4480/2842 (2032/1289)	4530/3175 (2055/1440)	4594/3212 (2084/1457)
2.4	Axle loading fork advanced, RL front/rear	lb (kg)	1504/8444 (682/3830)	1746/8636 (792/3917)	1504/8444 (682/3830)	1764/8644 (800/3921)	1951/8841 (885/4010)	2015/8878 (914/4027)
2.5	Axle loading fork retracted, RL front/rear	lb (kg)	3920/6030 (1778/2735)	3865/6517 (1753/2956)	3920/6030 (1778/2735)	3880/6526 (1760/2960)	3772/7020 (1711/3184)	3838/7057 (1741/3201)
4.19	Overall length	in (mm)	90.51 (2299)	93.35 (2371)	90.51 (2299)	93.35 (2371)	96.18 (2443)	96.18 (2443)
4.20	Length to face of forks	in (mm)	48.37 (1229)	51.20 (1301)	48.37 (1229)	51.20 (1301)	54.04 (1373)	54.04 (1373)
4.28	Reach distance	in (mm)	23.03 (585)	20.20 (513)	23.03 (585)	20.20 (513)	17.36 (441)	17.36 (441)
4.34.1	Aisle width for pallets 39.3"x47.2" (1000 mm x 1200 mm) across - (L6 x b12)	in (mm)	107.01 (2718)	109.09 (2771)	107.01 (2718)	109.09 (2771)	111.34 (2828)	111.26 (2826)
4.34.2	Aisle width for pallets 31.5"x47.2" (800 mm x 1200 mm) lengthwise - (b12 x L6)	in (mm)	108.82 (2764)	111.38 (2829)	108.82 (2764)	111.38 (2829)	113.98 (2895)	113.98 (2895)
4.34.3	Aisle width for pallets 40" x 48" lengthwise (b12 x L6)	in (mm)	111.54 (2833)	113.97 (2895)	111.54 (2833)	113.97 (2895)	116.46 (2958)	116.46 (2958)
4.34.4	Aisle width for pallets 48" x 48" (b12 x L6)	in (mm)	113.82 (2891)	116.13 (2950)	113.82 (2891)	116.13 (2950)	118.49 (3010)	118.49 (3010)
4.34.5	Aisle width for pallets 48" x 40" across (b12 x L6)	in (mm)	107.74 (2737)	109.81 (2789)	107.74 (2737)	109.81 (2789)	111.97 (2844)	111.97 (2844)
4.35	Turning radius	in (mm)	65.79 (1671)	65.79 (1671)	65.79 (1671)	65.79 (1671)	65.79 (1671)	65.79 (1671)
6.3	Battery according to DIN 43531/35/36 A,B,C, no (reference only)		C	C	C "Super"	C "Super"	C	C "Super"
6.4	Battery voltage/nominal capacity	V/Ah	48/420	48/560	48/465	48/620	48/700	48/775
6.5	Battery weight <sup>4</sup>	lb (kg)	1653 (750)	2070 (939)	1653 (750)	2094 (950)	2467 (1119)	2568 (1165)

## R1.6 406 TRUCK DIMENSIONS FOR BATTERIES

Item	Description	Unit	17.78 (452)	14.94 (380)	17.78 (452)	14.94 (380)	12.11 (308)	12.11 (308)
1.8	Load distance, center of drive axle to fork	in (mm)	17.78 (452)	14.94 (380)	17.78 (452)	14.94 (380)	12.11 (308)	12.11 (308)
1.9	Wheelbase	in (mm)	57.09 (1450)	57.09 (1450)	57.09 (1450)	57.09 (1450)	57.09 (1450)	57.09 (1450)
2.1	Service weight	lb (kg)	6971 (3162)	7408 (3360)	6971 (3162)	7432 (3371)	7818 (3546)	7919 (3592)
2.3	Axle loading, NL front/rear <sup>5</sup>	lb (kg)	4449/2522 (2018/1144)	4561/2846 (2069/1291)	4449/2522 (2018/1144)	4579/2853 (2077/1294)	4636/3181 (2103/1443)	4702/3217 (2133/1459)
2.4	Axle loading fork advanced, RL front/rear	lb (kg)	1325/9176 (601/4162)	1574/9361 (714/4246)	1325/9176 (601/4162)	1590/9370 (721/4250)	1786/9559 (810/4336)	1850/9595 (839/4352)
2.5	Axle loading fork retracted, RL front/rear	lb (kg)	4085/6413 (1853/2909)	4023/6911 (1825/3135)	4085/6413 (1853/2909)	4039/6920 (1832/3139)	3922/7423 (1779/3367)	3988/7458 (1809/3383)
4.19	Overall length	in (mm)	90.51 (2299)	93.35 (2371)	90.51 (2299)	93.35 (2371)	96.18 (2443)	96.18 (2443)
4.20	Length to face of forks	in (mm)	48.37 (1229)	51.20 (1301)	48.37 (1229)	51.20 (1301)	54.04 (1373)	54.04 (1373)
4.28	Reach distance	in (mm)	25.00 (635)	22.17 (563)	25.00 (635)	22.17 (563)	19.33 (491)	19.33 (491)
4.34.1	Aisle width for pallets 39.3"x47.2" (1000 mm x 1200 mm) across - (L6 x b12)	in (mm)	107.52 (2731)	109.49 (2781)	107.52 (2731)	109.49 (2781)	111.57 (2834)	111.57 (2834)
4.34.2	Aisle width for pallets 31.5"x47.2" (800 mm x 1200 mm) lengthwise - (b12 x L6)	in (mm)	108.94 (2767)	111.42 (2830)	108.94 (2767)	111.42 (2830)	114.02 (2896)	114.02 (2896)
4.34.3	Aisle width for pallets 40" x 48" lengthwise (b12 x L6)	in (mm)	111.73 (2838)	114.13 (2899)	111.73 (2838)	114.13 (2899)	116.58 (2961)	116.58 (2961)
4.34.4	Aisle width for pallets 48" x 48" (b12 x L6)	in (mm)	114.10 (2898)	116.37 (2956)	114.10 (2898)	116.37 (2956)	118.69 (3015)	118.69 (3015)
4.34.5	Aisle width for pallets 48" x 40" across (b12 x L6)	in (mm)	108.22 (2749)	110.21 (2799)	108.22 (2749)	110.21 (2799)	112.31 (2853)	112.31 (2853)
4.35	Turning radius	in (mm)	67.64 (1718)	67.64 (1718)	67.64 (1718)	67.64 (1718)	67.64 (1718)	67.64 (1718)
6.3	Battery according to DIN 43531/35/36 A,B,C, no (reference only)		C	C	C "Super"	C "Super"	C	C "Super"
6.4	Battery voltage/nominal capacity	V/Ah	48/420	48/560	48/465	48/620	48/700	48/775
6.5	Battery weight <sup>4</sup>	lb (kg)	1653 (750)	2070 (939)	1653 (750)	2094 (950)	2467 (1119)	2568 (1165)

<sup>4</sup> These values may vary of +/- 5%.

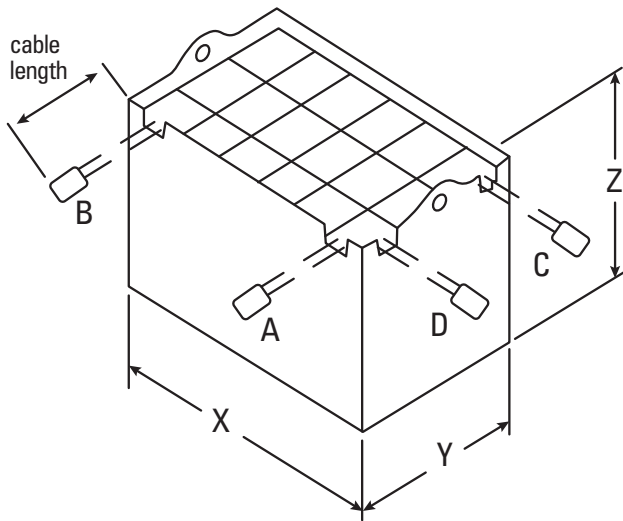
<sup>5</sup> Forks retracted.

RL = Rated Load, NL = No Load

All weights (2.1 to 2.5) are with lowest mast and standard forks.

# BATTERY SPECIFICATIONS

TRUCK MODEL	COMPARTMENT DIMENSIONS-MAX.			BATTERY DIMENSIONS-MAX.			VOLTS	NO. OF CELLS	AMP HR	WEIGHT	
	WIDTH	LENGTH	HEIGHT	X	Y	Z			CAPACITY RANGE	MIN	MAX
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)				lb (kg)	lb (kg)
				+0"/-0.12" (+0/-3)	+0"/-0.12" (+0/-3)	+0"/-0.08" (+0/-2)					
R1.4 406 - 3,000lb	48.15 (1223)	11.26 (286)	30.94 (786)	48.11 (1222)	11.14 (283)	30.87 (784)	48	24	420-465	1572 (713)	1737 (788)
R1.4 406 - 3,000lb	48.15 (1223)	14.09 (358)	30.94 (786)	48.11 (1222)	13.98 (355)	30.87 (784)	48	24	560-620	1967 (892)	2200 (998)
R1.4 406 - 3,000lb	48.15 (1223)	16.93 (430)	30.94 (786)	48.11 (1222)	16.81 (427)	30.87 (784)	48	24	700-775	2344 (1063)	2696 (1223)
R1.6 406 - 3,500lb	48.15 (1223)	11.26 (286)	30.94 (786)	48.11 (1222)	11.14 (283)	30.87 (784)	48	24	420-465	1572 (713)	1737 (788)
R1.6 406 - 3,500lb	48.15 (1223)	14.09 (358)	30.94 (786)	48.11 (1222)	13.98 (355)	30.87 (784)	48	24	560-620	1967 (892)	2200 (998)
R1.6 406 - 3,500lb	48.15 (1223)	16.93 (430)	30.94 (786)	48.11 (1222)	16.81 (427)	30.87 (784)	48	24	700-775	2344 (1063)	2696 (1223)



Battery compartment length is measured from front to rear.  
 Battery compartment width is measured across the truck.  
 Battery cover - not needed


PERFORMANCE	STD	OPT
6.8 mph travel speed (R1.4 406, R1.6 406)	x	
Height pre-selector (with/without pallet detection device)		x
DRIVE	STD	OPT
Top/front load wheel protection	x	
LIFT	STD	OPT
3-stage mast/tilting carriage	x	
HANDLING	STD	OPT
TouchPoint™ mini-levers hydraulic controls	x	
Simultaneous lift/reach functionality	x	
Lift comfort package		x
ERGONOMICS	STD	OPT
Intermediate step	x	
Grab handle on overhead guard and under armrest	x	
Adjustable length armrest	x	
Full suspension seat	x	
Standard display	x	
Adjustable steering column	x	
Premium touch screen display		x
Amber strobe		x
Work lights (mast side)		x
Work lights (driver side)		x

OPERATION	STD	OPT
180 degree steering	x	
Keyless access		x
360 degree steering		x
Clipboard		x
High temperature environment		x
Side battery change - battery tray rollers		x
Audible alarm (forks leading)		x
Load backrest (39.4" (1000 mm))		x
Cold storage (-22 deg F (-30 deg C))		x
Pedestrian awareness lights (spotlight chassis direction - forks trailing)		x





Hyster Company  
P.O. Box 7006, Greenville, North Carolina 27835-7006

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