

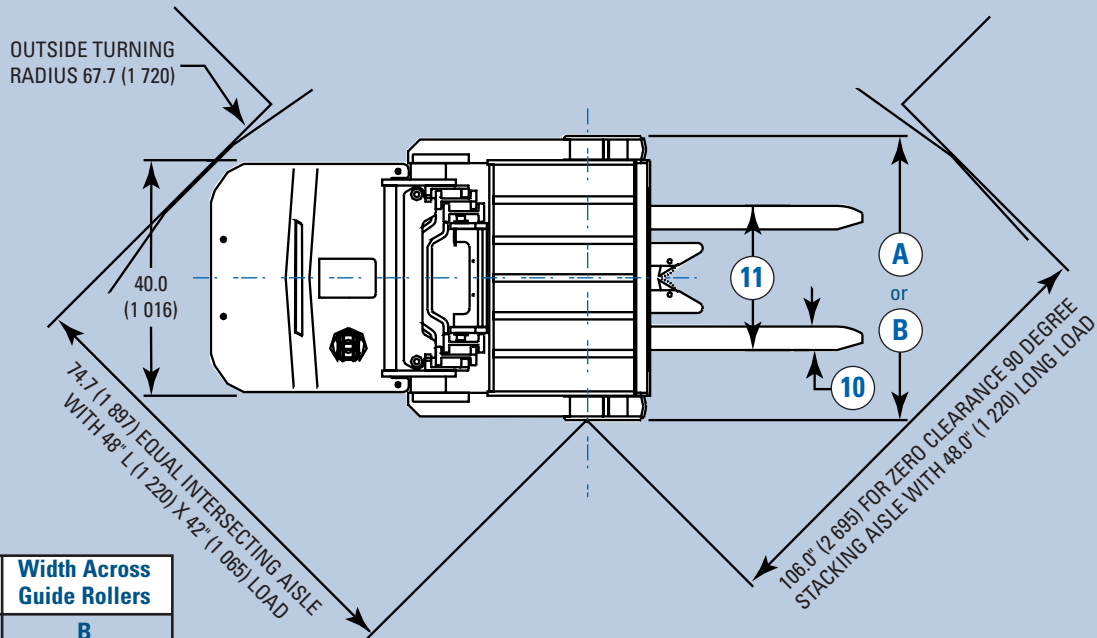
# R30XM<sub>2</sub> OrderPicker

*Technical Guide*

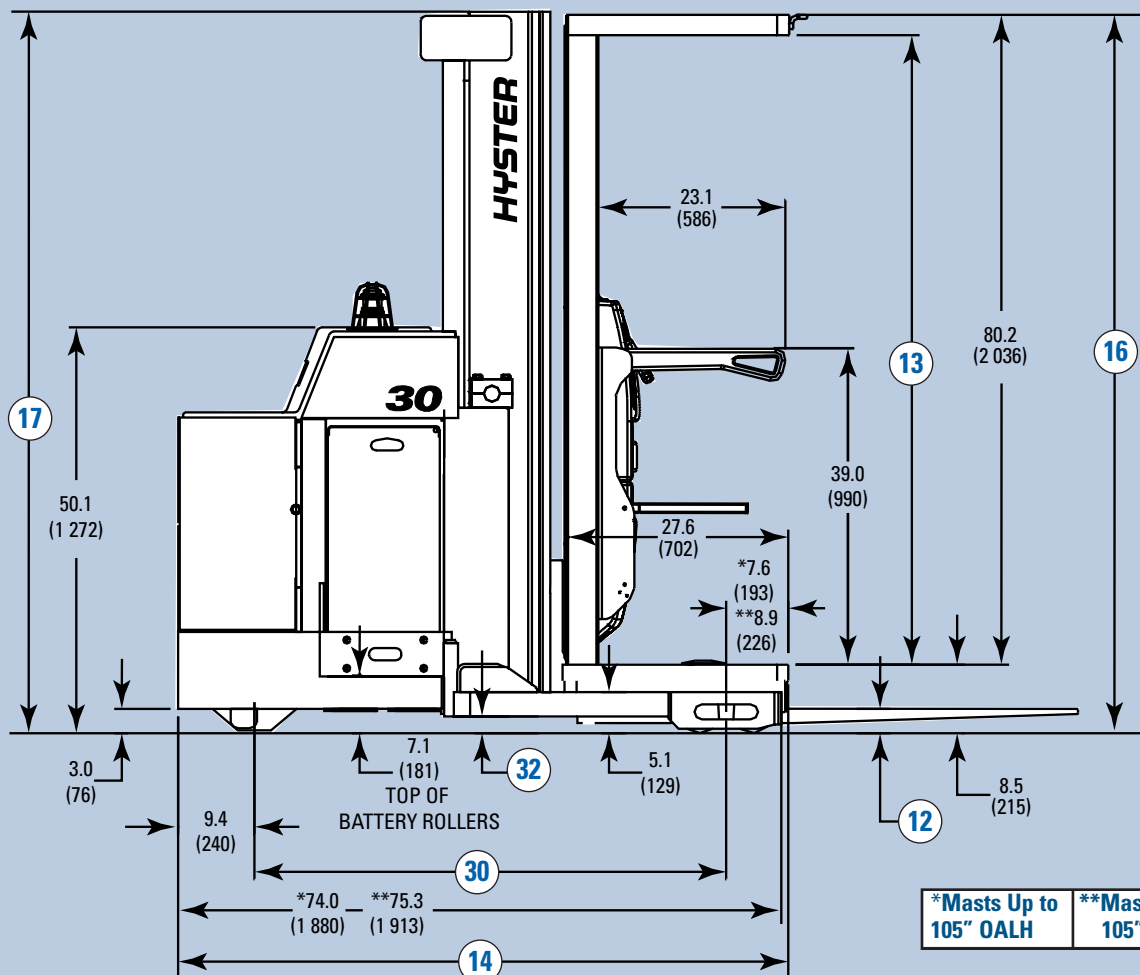




# Hyster R30XM<sub>2</sub> Lift Truck Specifications



Base Width	Width Across Guide Rollers
A	B
41.3 (1 049)	48.3 (1 225)
48.0 (1 220)	55.0 (1 400)



*Masts Up to 105" OALH	**Masts Above 105" OALH
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Circled dimensions correspond to the line numbers on the tabulated chart inside the Technical Guide.  
Dimensions are in inches (millimeters).



# Hyster R30XM<sub>2</sub> Lift Truck Specifications

GENERAL	1	Manufacturer		Hyster Company	Hyster Company
	2	Model		R30XM <sub>2</sub> (24V)	R30XM <sub>2</sub> (36V)
	3	Capacity, rated	lb. (kg)	3,000 (1 360)	3,000 (1 360)
	4	Load center	in. (mm)	24.0 (610)	24.0 (610)
	5	Power type		Electric	Electric
	6	Operator type		Stand	Stand
	7	Tire type, front / rear	load / drive	Poly / Poly	Poly / Poly
	8	Wheels, front / rear (X=driven)	front / rear	4 / 1X	4 / 1X
DIMENSIONS	9	3-Stage.VISTA (TOF)	in. (mm)	SEE MAST CHART	SEE MAST CHART
	10	Forks, width / thickness	in. (mm)	4.0 (102) / 1.8 (46)	4.0 (102) / 1.8 (46)
	11	Fork spread, inside-to-inside minimum / maximum	in. (mm)	13.0 (330) / 20.0 (508)	13.0 (330) / 20.0 (508)
		Fork spread, outside-to-outside minimum / maximum	in. (mm)	21.0 (533) / 28.0 (711)	21.0 (533) / 28.0 (711)
	12	Top of fork, mast lowered	in. (mm)	3.0 (76)	3.0 (76)
	13	Headroom	in. (mm)	77.7 (1 974)	77.7 (1 974)
	14	Head length to face of forks 3-stage	in. (mm)	75.3 (1 913)	75.3 (1 913)
	15	Base width	in. (mm)	41.3 (1 049) / 48.0 (1 219)	41.3 (1 049) / 48.0 (1 219)
	16	Height, standard mast lowered	in. (mm)	SEE MAST CHART	SEE MAST CHART
	17	Height, standard mast extended	in. (mm)	SEE MAST CHART	SEE MAST CHART
	18	Operator platform width	in. (mm)	40.25 (1 022)	40.25 (1 022)
	19	Turning radius, minimum outside	in. (mm)	67.7 (1 720)	67.7 (1 720)
	20	Stacking aisle, zero clearance w/ 48" x 48" load - 3-stage	in. (mm)	122.9 (3 122)	122.9 (3 122)
	21	Intersecting aisle, equal aisles 48" x 48" pallet	in. (mm)	74.7 (1 897)	74.7 (1 897)
PERF. †	22	Stability, comply with ANSI? Δ		YES	YES
	23	Travel speed, std truck, NL / RL	mph (km/h)	SEE TRAVEL SPEED CHART	SEE TRAVEL SPEED CHART
	24	Lift speed, 3-stage VISTA mast NL/RL	ft/min (m/s)	SEE PERFORMANCE CHART	SEE PERFORMANCE CHART
	25	Lowering, 3-Stage VISTA mast NL / RL	ft/min (m/s)	SEE PERFORMANCE CHART	SEE PERFORMANCE CHART
WT.	26	Total approximate weight w/o battery	lb. (kg)	Contact Dealer	Contact Dealer
	27	Axle loading, static, rated load front / rear (max. batt.)	lb. (kg)	Contact Dealer	Contact Dealer
WHEELS & TIRES	28	Size of tires, front load wheels (tandem articulating)	in. (mm)	5.0 (127) x 3.0 (76)	5.0 (127) x 3.0 (76)
	29	Size of tire (drive/steer)	in. (mm)	12.0" (305) x 5.5 (140)	12.0" (305) x 5.5 (140)
	30	Wheelbase	in. (mm)	57.0 (1 449)	57.0 (1 449)
	31	Ground clearance, no load, lowest point	in. (mm)	0.5 (13)	0.5 (13)
	32	Ground clearance, no load, center wheelbase	in. (mm)	2.0 (51)	2.0 (51)
	33	Brakes, method of control		Foot	Foot
	34	Brakes, method of operation		Spring Applied / Electric Release	Spring Applied / Electric Release
ELECTRIC	35	Battery, type		Lead-Acid	Lead-Acid
	36	Battery voltage / Maximum ampere hours (6-hr rate)	Ah	1 125	1 020
	37	Battery weight, 14.6" Battery Compartment min. / max.	lb. (kg)	1,600 (726) / 2,000 (907)	1,600 (726) / 1,800 (816)
	38	Traction motor control method		SepEx Traction Controller	SepEx Traction Controller
	39	Pump motor control method		Contactactor	Contactactor
	40	Number of speeds		Infinitely Variable	Infinitely Variable

Δ **CERTIFICATION:** These Hyster lift trucks meet design specifications of Part II ANSI B56.1-1993, as required by OSHA Section 1910.178 (a) (2) and also comply with Part III ANSI B56.1-revision in effect at time of manufacture. Certification of compliance with the applicable ANSI standards appears on the lift truck.

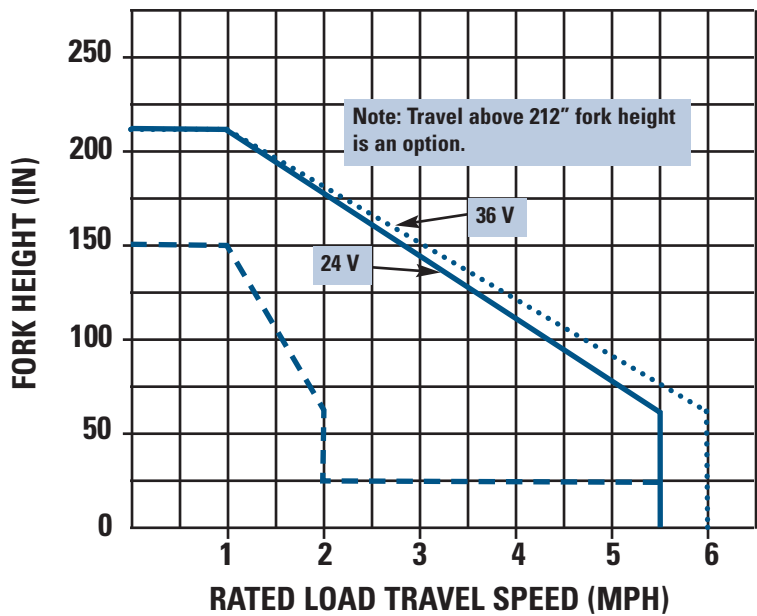
† **NOTE:** Performance specifications are for truck equipped as described under **Standard Equipment** in the Technical Guide. Performance specifications are affected by the condition of the vehicle and how it is equipped, as well as the nature and condition of the operating area. If these specifications are critical, the proposed applications should be discussed with your dealer.

**Important:** In rail or wire guided applications, floor flatness and condition are critical to the operation of this vehicle. Contact your Hyster lift truck dealer for wire guidance specifications.



# Hyster R30XM<sub>2</sub> Lift Truck Performance

## TRAVEL SPEEDS VS. FORK HEIGHT MPH VS. INCHES



### Steer Angle from Center Line of Truck

..... < 10 degrees      - - - > 10 degrees

TRAVEL SPEEDS	RL / NL (MPH)			
	STEER ANGLE FROM CENTER LINE OF TRUCK			
	24 VOLT		36 VOLT	
Fork Height	< 10°	> 10°	< 10°	> 10°
0"	5.5 / 6.0	5.5 / 6.0	6.0 / 6.5	6.0 / 6.5
24"	5.5 / 6.0	2.0 / 2.5	6.0 / 6.5	2.0 / 2.5
60"	5.5 / 6.0	2.0 / 2.5	6.0 / 6.5	2.0 / 2.5
116"	3.7 / 4.1	1.5 / 1.9	3.7 / 4.2	1.5 / 1.7
150"	2.5 / 2.9	1.0 / 1.5	2.5 / 2.8	1.0 / 1.5
195"	1.1 / 1.2	NO TRAVEL	1.1 / 1.2	NO TRAVEL
212"	1.0 / 1.0	NO TRAVEL	1.0 / 1.0	NO TRAVEL
OVER 212"	NO TRAVEL	NO TRAVEL	NO TRAVEL	NO TRAVEL





**NOTE:** Speed limits are for loaded/unloaded trucks at operating temperature with fully charged battery.



- For lift heights between 24.0" (610 mm) and 150.0" (3 810 mm), traction speed is reduced when steering angle exceeds 10°.
- TOLERANCE: RL SPEEDS +0 / - 0.5 MPH  
NL SPEEDS ARE REF.
- Travel above 212.0" (5 385 mm) fork height requires a Hi-level traction option. Capacity reduction required.



**Contact** your local Hyster lift truck dealer for additional information.



# Standard Features and Options

BATTERY SPECIFICATION				
Voltage	Battery Compartment in. (mm)	Battery Width  Minimum / Maximum in. (mm)	Battery Height  Maximum in. (mm)	Battery Length  Minimum / Maximum in. (mm)
24	14.6 (371)	13.5 (343) / 14.35 (358)	30.8 (782)	35.4 (899) / 38.9 (988)
36	14.6 (371)	13.5 (343) / 14.35 (358)	30.8 (782)	35.4 (899) / 38.9 (988)
SB 350 Connector - 16" (406 mm), maximum 1/0 gauge cable, B position, 36 volt gray, 24 volt red.  Length, Width, and Height ( <b>Length</b> installed side-to-side of truck, <b>Width</b> installed front to back of truck).				

MAST DIMENSIONS in (mm)			
Maximum Fork Height  (Top of Forks)	Overall Lowered Height	Overall Extended Height	Total Truck Weight (Excluding battery) lb. (kg)
3-STAGE VISTA			
195.0 (4 953)	89.0 (2 261)	283.7 (7 206)	4,900 (2 223)
213.0 (5 410)	95.0 (2 413)	298.7 (7 587)	5,000 (2 268)
240.0 (6 096)	105.0 (2 667)	331.7 (8 425)	5,200 (2 359)
276.0 (7 010)	119.0 (3 023)	364.7 (9 263)	5,400 (2 449)
 Lift heights over 243 in. (6 172 mm) maximum fork height may require reduced capacity depending upon OEC dimensions.			

PERFORMANCE		NOTE: Performance specifications are for truck described under Standard Equipment on back of Technical Guide. Performance 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. If these specifications are critical, the proposed application should be discussed with your dealer.		
LIFTING-LOWERING		ft./min. (m/s)		
	MAST TYPE	VOLT	NO LOAD	RATED LOAD 
			Fast Mode	Fast Mode
LIFTING	3-Stage VISTA	24	65.0 (0.33)	42.0 (0.21)
	3-Stage VISTA	36	75.0 (0.38)	48.0 (0.24)
LOWERING	3-Stage VISTA	24 / 36	65.0 (0.33)	75.0 (0.38)
 Rated load figures are based on 3,000 lb (1 361 kg) load.				

## CAPACITY

**Model R30XM<sub>2</sub>:** 3,000 lbs (1 360 kg) at 24" (600 mm) load center

***Rated capacity is for truck equipped with:***

- 3-stage VISTA<sup>®</sup> mast with a maximum fork height of 276" (7 010 mm).
- Base width is 42" (1 040 mm).
- Minimum battery weight is 1,500 lbs (680 kg).

The R30XM<sub>2</sub> is a counterbalanced truck that carries loads outside the wheelbase. Weight of the truck and load is carried by the load wheels in the rear and by the drive wheel in front.

Capacities are subject to derating depending upon maximum fork height, base width, battery weight and other options. See your dealer for details.

## STANDARD EQUIPMENT

The R30XM<sub>2</sub> standard truck is equipped with: 24 volt battery system • Curtis SepEx Transistor controller with auto deceleration system (ADS) and automatic field control • Continuous height sensing • Controller area network (CAN) Communications • return-to-center electric power steering

- thumb operated variable speed lift/lower • battery compartment rollers • pallet clamp • retractable side gates with lift & traction cutout • polyurethane drive tire • articulating tandem polyurethane load wheels • adjustable fork widths • amber strobe light • power fuses • electronic power disconnect with key reset • battery discharge indicator with lift interrupt • hour meter • slack chain indicator • 2 fixed lights, dome light, 2-speed fan • cantilever operator's overhead guard • spacious operator platform • anti-fatigue floormat • operator amenities: storage pockets, removable trash bin, and cupholder • wire mesh screen • harness • SB 350 battery connector • static discharge strap • U.L. Classification E

### Optional items include:

- Various VISTA 3-stage masts • 6-inch adjustable operator control panel • freezer package • retracting operator harness mechanism • travel greater than 212.0" (5 385 mm) with 10° steer • multi-turn steering • 2-speed body fan in operator control panel • freezer construction • traction performance package • base arm guide rollers • 36-volt operating system • fixed hoop side rails • 2 adjustable spotlights • parts manual • various mast heights • various carriage platform widths • various mast lift heights • various pin-type fork lengths • base widths • Hyster wire guidance • battery stand • battery puller • wire driver • fire extinguisher • UL Classification EE



# Standard Features and Options

## MASTS

VISTA® 3-stage masts feature a nested channel design and full-face, straight load rollers. Brass side wear plugs allow easy mast adjustment during periodic maintenance without the removal or disassembly of the mast. Leaf-type chains are used for strength and compactness. Masts are trunion mounted for easy removal.

## CARRIAGE / PLATFORM

R30XM<sub>2</sub> has a 40.25" (1 022 mm) wide operator platform and a pallet clamp that grips and centers pallets automatically with a convenient foot-operated release. The R30XM<sub>2</sub> lift truck is available without the pallet clamp.

## FORKS

1.75" x 4.0" x 36", 42", 48", or 54" (45 x 102 x 914, 1 067, 1 219, or 1 372 mm) or 2.00" x 5.0" x 78" (51 x 127 x 1 981)

Fork spacing is adjustable. The minimum inside-to-inside is 13.0" (330 mm) and the maximum outside-to-outside fork spacing is 28.0" (710 mm).

## ELECTRICAL SYSTEM

Curtis SEPEX transistor control system benefits include:

- Long battery shift life
- Smooth, adjustable, time-controlled acceleration
- Adjustable plugging and auto deceleration system (ADS)

Controller Area Network (CANbus) technology has improved reliability and reduced wire complexity. Electrical system wiring over the mast has been reduced in number to provide improved durability. The CANbus controller has been sealed for protection from moisture and dirt.

Single point diagnostics provides the steering system, traction system and optional wire guidance information on an easy viewing backlit dash display. Diagnostics program permits the service technician to view information codes without use of handset or laptop computer.

New multifunction control handle incorporates a Hall effect sensor for traction speed. This reduces

maintenance, increases life span, and increases its durability.

## STEERING SYSTEM

Brushless DC steering motor has reduced maintenance requirements. Utilizing a solid-state encoder, durability has been increased. Hence return-to-center (RTC) steering and our optional multi-turn steering systems require less maintenance.

RTC steering increases productivity and reduces operator fatigue by enabling operator to steer truck with minimal wrist movements. The RTC handle allows the operator to comfortably grip and operate the truck in either fork-first or chassis-first direction. The cover provides a comfortable rest for forearm comfort while driving in the fork-first direction.

The optional wire guidance system can be used with the line frequency of 6.25 or 5.2 kHz setting.

Steer tire position is monitored by the steer motor's internal encoder. Our RTC and optional multi-turn steering systems feature this auto-centering of the steer tire at power start-up.

## HYDRAULIC SYSTEM

A twenty-five micron return line filter inside the 7.25 gallon (27.4 L) hydraulic tank reduces foaming of returning hydraulic fluid. Filter is easily replaced without needing to drain the tank.

### *R30XM<sub>2</sub> truck features:*

- 3,000 PSI hydraulic system.
- Thumb operated variable lift / lower function improves productivity during travel.
- Routing hoses through the mast eliminates the need for hose reels.
- Sight gauge allows quick checking of the oil level without removing the cover.
- Hydraulic components are easily accessible through the rear compartment for maintenance.

## DRIVE TRAIN

HySense is a standard feature which allows travel speed to be maximized at platform heights between 60.0" (1 524 mm) and 212.0" (5 385 mm) to optimize maximum travel speed at various fork heights. The control system

will also reduce travel speed when the drive unit has been turned more than 10 degrees in either direction and when the platform is above 24.0" (610 mm). Mast height is monitored by a solid-state optical encoder which requires no maintenance.

This series of trucks comes equipped with the GK series drive unit with gear drive steering. Less maintenance is required because the steering chain adjustment has been eliminated, there are less parts to maintain and the turntable bearing is replaceable. All of these factors lead to an increase in the service life of the unit.

SEM traction motor is cooled by an internal fan and uses Class H insulation for durability. Non-rotating motor mounting eliminates power lead twisting. Drive unit incorporates roller bearing system and oil bath gear lubrication for efficient operation and long life. 180 degree steering angle offers excellent maneuverability.

Tandem polyurethane load wheels articulate to share load evenly and diminish truck reaction to floor irregularities. All welded box section load wheel hangers provide exceptional protection against bending and shield wheels from impacts. Double sealed bearings and single bolt installation simplify each load wheel replacement. No shimmiing or additional lubrication required.

## PARK BRAKE

Non-asbestos disk-type park brake is spring-applied and electrically released. Park brake is mounted on top of traction motor to take full advantage of drive train reduction.

Brakes are controlled by foot switch in operator's platform. Release of foot switch plugs the truck to a stop and then applies the brake.

Plugging is reduced at elevated heights for smoother braking performance and increased operator comfort.

## OPERATOR AREA

The operator area of the R30XM<sub>2</sub> truck has been designed for operator comfort and operating ease. Features

include optional upper body 2-speed fan located within console, removable trash bin, cup holder, and storage for items such as clipboards, bar code scanners, and other amenities.

The optional overhead light illuminates the operator compartment, fork area, and bins for better visibility within the operator area.

The optional overhead 2-speed fan allows the operators to adequately ventilate their upper body by positioning the adjustable louvers to direct airflow.

RTC soft touch steering handle allows the operator to comfortably operate fork-first or chassis-first.

For added comfort, the operator is able to adjust the console height within a 6.0" (152 mm) vertical range and lock the console into place once a comfortable driving height has been reached (optional). The 1" thick floor mat offers supportive comfort.

The foot switch has been positioned to allow the operator to stand in a comfortable, natural stance on the platform.

Standard retractable side gates are gas spring assisted and operated with minimum effort.

Automatic interrupt deactivates lowering and traction functions if forks are hung up.

The new ergonomic multifunction handle is thumb-actuated for variable speed lift and lower functions, has a trigger style horn, and possesses a comfortable grip for either chassis- or fork-first driving. The multifunction handle can be adjusted to one of three positions for comfortable operation.

*Special attachments, equipment or accessories not listed above may be available through Applications Engineering for specific requirements.*







**Hyster Company**

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

**Part No. R30XM2/TG**  
1/2003 Litho in U.S.A.

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