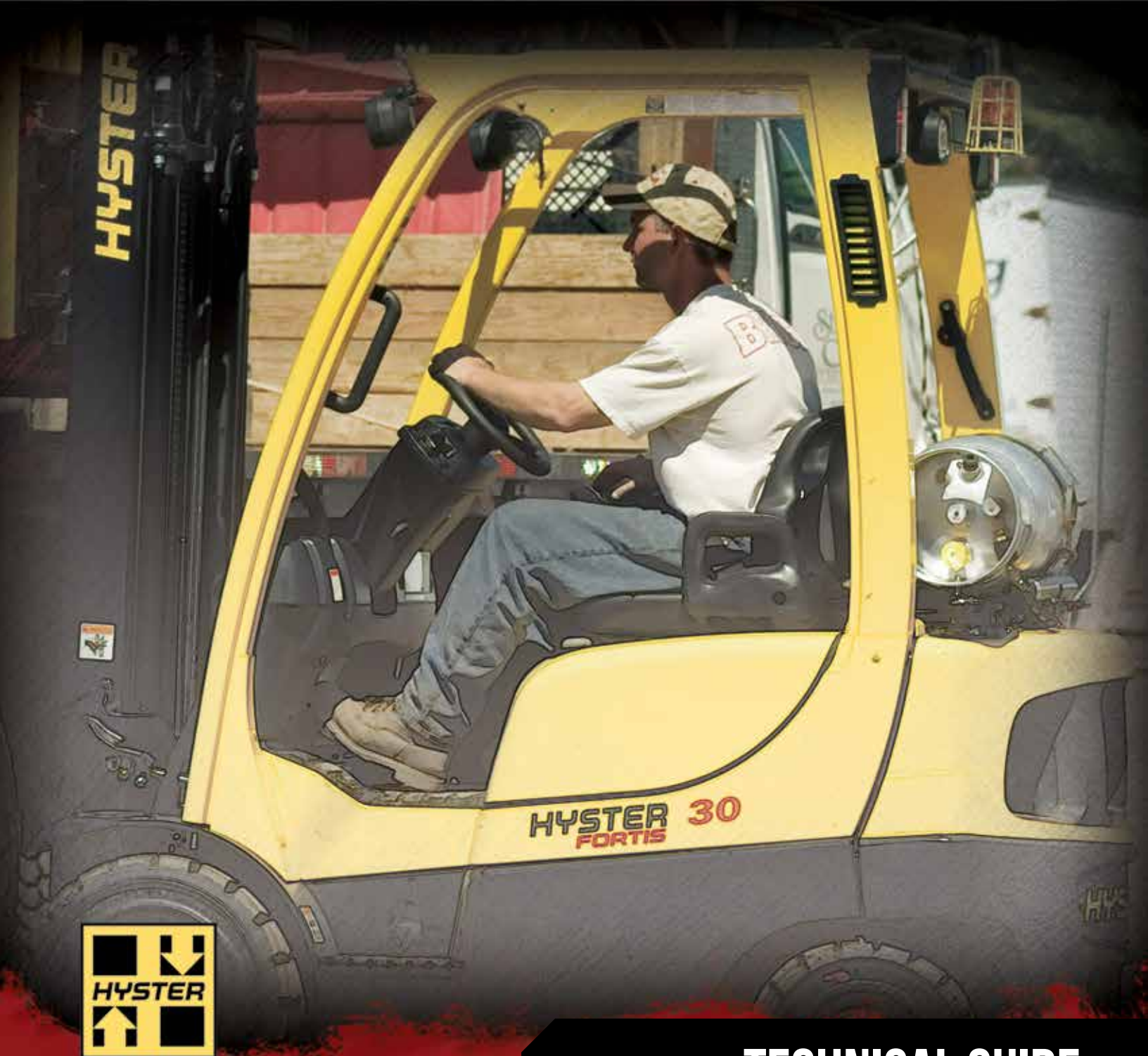


# H30-40FTS SERIES

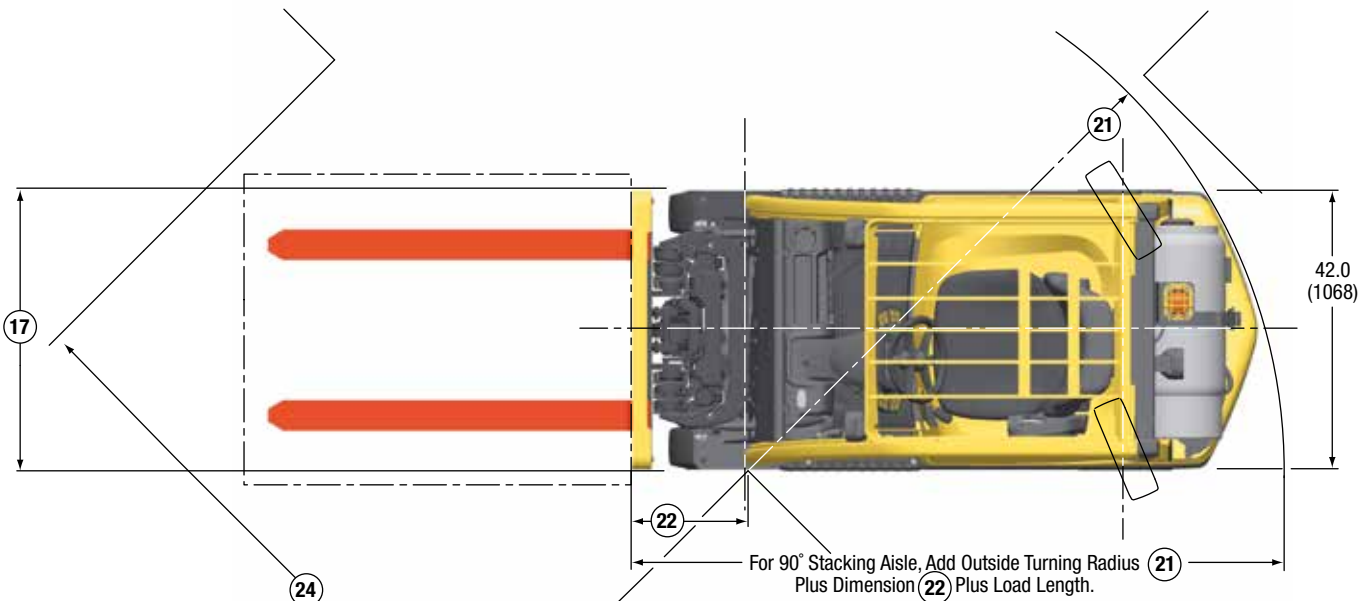


**STRONG PARTNERS.  
TOUGH TRUCKS.™**

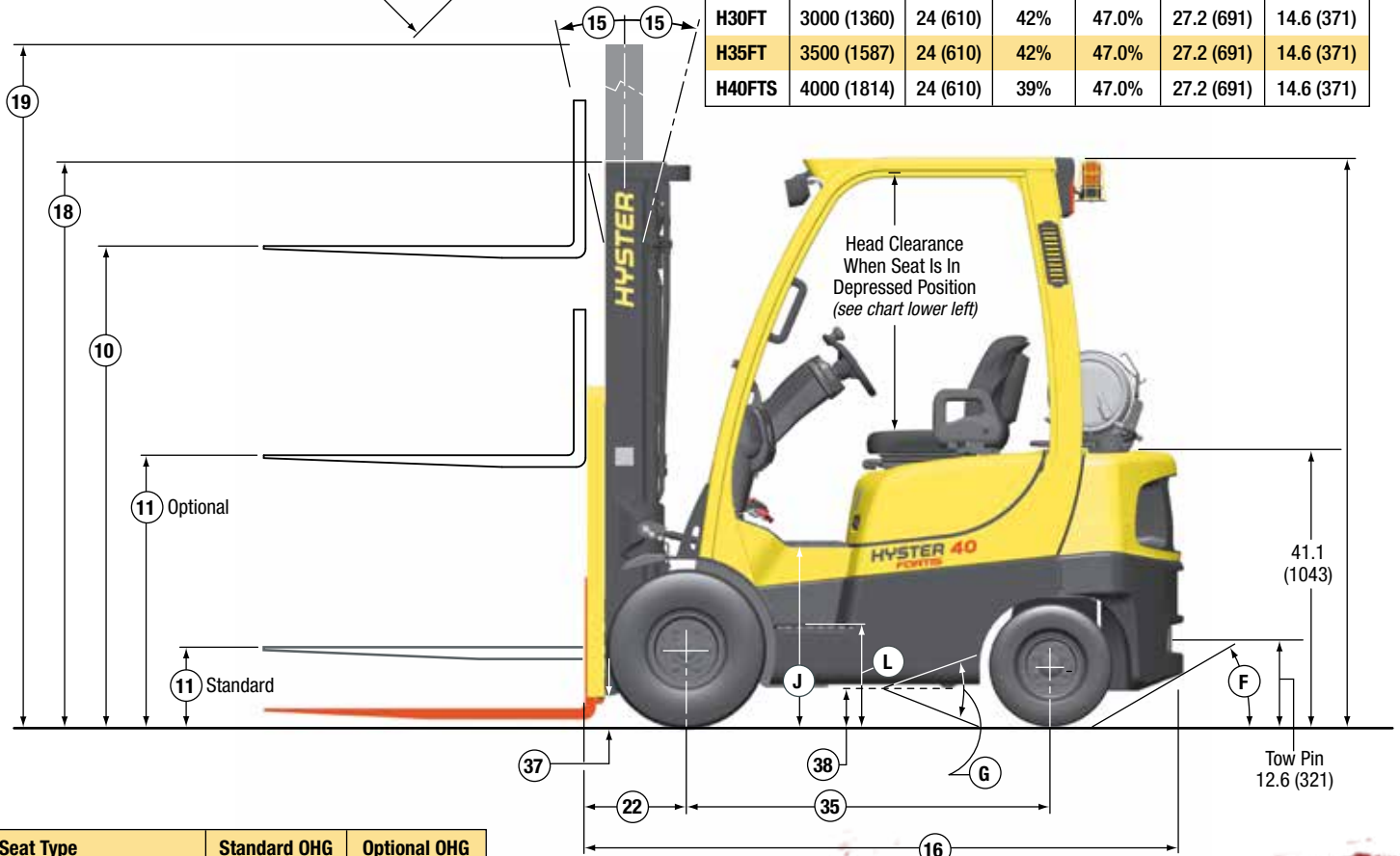
## **TECHNICAL GUIDE**

**Sit-down, Counterbalanced IC, Pneumatic Tire**

# H30FT-40FTS DIMENSIONS



TRUCK MODEL	LIFT CAPACITY lb (kg)	LOAD CENTER in (mm)	F Percent	G Percent	J in (mm)	L in (mm)
H30FT	3000 (1360)	24 (610)	42%	47.0%	27.2 (691)	14.6 (371)
H35FT	3500 (1587)	24 (610)	42%	47.0%	27.2 (691)	14.6 (371)
H40FTS	4000 (1814)	24 (610)	39%	47.0%	27.2 (691)	14.6 (371)



Seat Type	Standard OHG	Optional OHG
Non-Suspension	42.0 (1067)	39.4 (1001)
Semi-Suspension	42.5 (1079)	39.9 (1013)
Full-Suspension	42.0 (1067)	N/A
Swivel Full-Suspension	42.0 (1067)	N/A

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

# H30FT SPECIFICATIONS

		Hyster Company				
		H30FT	H35FT	H40FTS		
<b>GENERAL</b>	1	Manufacturer Name	Hyster Company			
	2	Model	H30FT	H35FT	H40FTS	
		Engine	Mazda 2.0L			
	3	Rated Capacity	lb (kg)	3000 (1360)	3500 (1587)	4000 (1812)
	4	Load Center, Distance	in (mm)	24.0 (610)		
	5	Power Type	LPG			
	6	Operator Type	Sit-Down Rider			
	7	Step Height	in (mm)	14.6 (371)		
	8	Tire Type - Cushion, Solid, Pneumatic	Pneumatic			
<b>DIMENSIONS</b>	9	Wheels, Number - Front / Rear	2x / 2			
	10	Lift Height, Top of Fork (TOF)	in (mm)	123 (3132)		
	11	Lift Heights, Standard Limited Free Lift (LFL) with LBR (TOF)	in (mm)	5 (140)		
		Lift Heights, Optional Full Free Lift (FFL) with LBR (TOF)	in (mm)	35 (902)		
	12	Standard Carriage Width	in (mm)	38.5 (977)		
	13	Forks, Thickness x Width x Length	in	1.6 X 3.9 X 42.0		
		Forks, Thickness x Width x Length	(mm)	(40 X 100 X 1067)		
	14	Fork Spread, Outside Dimensions	in (mm)	37.5 (955)		
	15	Mast Tilt Angles, Forward / Backward	Degrees °	6F / 6B		
	16	Length To Face of Forks	in (mm)	88.1 (2239)	89.4 (2271)	
	17	Overall Width, Standard Tread	in (mm)	42.0 (1068)		
		Overall Width, Wide Tread	in (mm)	48.7 (1238)		
	18	Height, Standard Mast - Lowered	in (mm)	82 (2075)		
	19	Height, Standard Mast - Extended with LBR	in (mm)	172(4355)		
		Height, Standard Mast - Extended without LBR	in (mm)	146 (3706)		
	20	Height, Standard Overhead Guard	in (mm)	84.6 (2149)		
		Height, Optional Overhead Guard	in (mm)	81.9 (2081)		
	21	Turning Radius, Minimum Outside (OTR)	in (mm)	77.0 (1955)	78.1 (1985)	
	22	Length, Center of Wheel to Face of Forks	in (mm)	15.1 (384)		
	23	Aisle Width, Right Angle Stack (Add Length of Load)	in (mm)	92.1 (2339)	93.3 (2369)	
	24	Equal Aisle, 90-Degree Intersecting Aisle	in (mm)	73.9 (1830)	74.4 (1855)	
	<b>PERFORMANCE</b>	25	Travel Speed RL/NL	mph (km/h)	12.7 (20.5) / 13.0 (20.9)	
		26	Lift Speed, Standard 2-Stage LFL RL/NL	ft / min (m/s)	112.0 (0.57) / 114.0 (0.58)	
			Lift Speed, Optional 2-Stage FFL RL/NL	ft / min (m/s)	91 (.46) / 92 (.47)	
		Lift Speed, Optional 3-Stage FFL RL/NL	ft / min (m/s)	104 (.53) / 106 (.54)		
27		Lowering Speed, Standard 2-Stage LFL RL/NL	ft / min (m/s)	100 (.51) / 92 (.47)		
		Lowering Speed, Optional 2-Stage FFL RL/NL	ft / min (m/s)	91 (.46) / 73 (.37)		
		Lowering Speed, Optional 3-Stage FFL RL/NL	ft / min (m/s)	94 (.48) / 81 (.41)		
28		Drawbar Pull @ 1 mph RL/NL	lb (kg)	2547 (11.3) / 1680 (7.47)	2515 (11.2) / 1619 (7.2)	2484 (11.0) / 1558 (6.93)
29		Gradeability @ 1 mph RL/NL ††	Percent %	28.3 / 29.0	25.5 / 26.3	22.7 / 23.6
<b>WT.</b>		31	Weight, Standard Truck (2-Stg. LFL 84 / 127) NL	lb (kg)	6207 (2815)	6371 (2890)
		Weight, Standard Truck (2-Stg. LFL 84 / 127) RL	lb (kg)	9207 (4176)	9871 (4477)	10722 (4863)
	32	Axle Loading, Static Front / Rear NL	lb (kg)	2783 (1262) / 3424 (1553)	2749 (1247) / 3622 (1643)	2657 (1205) / 4065 (1844)
		Axle Loading, Static Front / Rear RL	lb (kg)	7929 (3597) / 1278 (580)	8753 (3970) / 1119 (508)	9518 (4317) / 1204 (546)
<b>TIRES &amp; WHEELS</b>	33	Tire Size, Front	6.50 x 10 - 10			
	34	Tire Size, Rear	5.00 x 8.00			
	35	Wheelbase	in (mm)	54.5 (1385)		
	37	Ground Clearance, Lowest Point NL (with RL subtract 6mm)	in (mm)	5.3 (135)		
	38	Ground Clearance, Center of Wheelbase NL	in (mm)	5.7 (146)		
	39	Service Brake - Method of Control / Operation	Foot / Hydraulic			
	40	Parking Brake - Method of Control / Operation	Hand / Mechanical			
	41	Battery Type	Maintenance Free			
	42	Volts / Cold Cranking Amps	v / cca	12 / 475		
	43	Engine, Manufacturer / Model	Mazda FE			
<b>POWERTRAIN</b>	44	Permanent Output	hp (Kw)	41 (30)		
	45	Torque @ Rated RPM	ft Lbs (kg/m)	100 (13.8) @ 1800 RPM		
	46	Number of Cylinders / Displacement	No / cc (ci)	4 / 1998 (122)		
		Standard Speeds, Forward - Reverse	1-1			
	51	Auxiliary Hydraulic Pressure Relief for Attachments	PSI (Mpa)	2306 (15.9)		

NOTE: 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.

CERTIFICATION: These Hyster® lift trucks meet design specifications of Part II ANSI B56.1-1969, 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. 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.

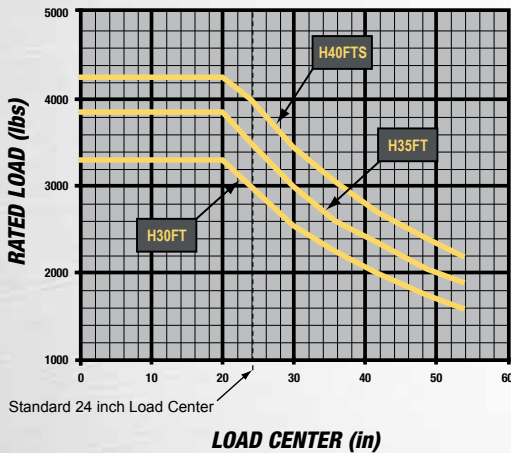
# MAST SPECIFICATIONS AND RATED CAPACITIES

## H30-35FT, H40FTS MAST DIMENSIONS

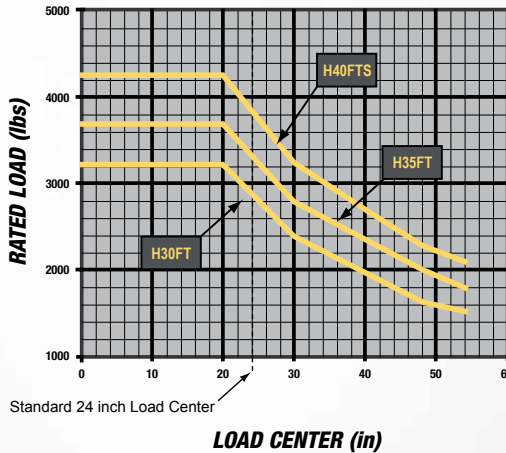
Maximum Fork Height (TOF) †	Overall Lowered Height	Overall Extended Height		Free lift (TOF)		Approximate Total Weight of Standard Equipped Truck	
		with LBR	w/o LBR	with LBR	w/o LBR	H30FT/H35FT/H40FTS w/NL	H30FT/H35FT/H40FTS w/RL
in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	lbs (kg)	lbs (kg)
<b>2-STAGE LIMITED FREE LIFT (LFL) VISTA™ MAST</b>							
83 (2132)	62 (1575)	133 (3355)	107 (2706)	5 (140)	5 (140)	6513 (2960) / 6696 (3044) / 7046 (3203)	9513 (4315) / 10196 (4625) / 11046 (5010)
123 (3132)	82 (2075)	172 (4355)	146 (3706)	5 (140)	5 (140)	6207 (2815) / 6371 (2890) / 6722 (3049)	9207 (4176) / 9871 (4477) / 10722 (4863)
<b>2-STAGE FULL FREE LIFT (FFL) VISTA™ MAST</b>							
114 (2918)	78 (1975)	164 (4141)	138 (3492)	29 (752)	55 (1401)	6533 (2970) / 6716 (3053) / 7066 (3212)	9533 (4324) / 10216 (4658) / 11066 (5019)
126 (3218)	84 (2125)	175 (4441)	150 (3792)	35 (902)	61 (1551)	6590 (2995) / 6773 (3079) / 7123 (3238)	9590 (4350) / 10273 (4660) / 11123 (5045)
<b>3-STAGE FULL FREE LIFT (FFL) VISTA™ MAST</b>							
175 (4450)	80 (2025)	224 (5673)	198 (5019)	31 (802)	57 (1456)	6802 (3092) / 6985 (3175) / 7335 (3334)	9802 (4446) / 10485 (4756) / 11335 (5141)
187 (4750)	84 (2125)	236 (5973)	210 (5319)	35 (902)	61 (1556)	6846 (3112) / 7029 (3195) / 7379 (3354)	9846 (4466) / 10529 (4776) / 11379 (5161)
198 (5050)	90 (2275)	247 (6273)	222 (5619)	41 (1052)	67 (1706)	6903 (3138) / 7086 (3221) / 7436 (3380)	9903 (4491) / 10586 (4802) / 11436 (5187)
216 (5510)	96 (2425)	265 (6723)	239 (6069)	47 (1202)	73 (1856)	7022 (3192) / 7205 (3275) / 7555 (3434)	10022 (4546) / 10705 (4856) / 11555 (5241)

† Lift heights over 157.0" (4000 mm) maximum fork height are considered highlifts and require reduced capacity and restricted back tilt. Total approximate weights listed include mast, standard carriage, load backrest extension and 70 lbs. LP tank and tank bracket. RL = Rated Load NL = No Load LBE = Load Backrest Extension

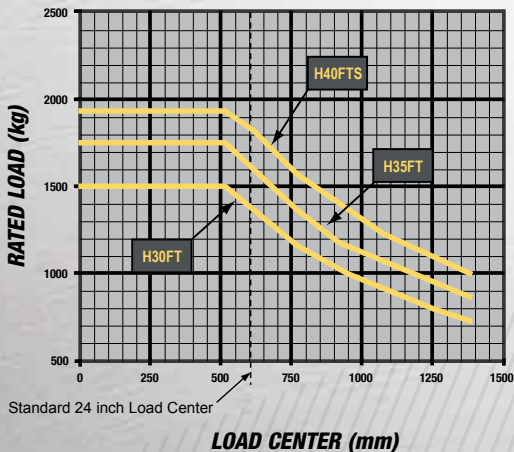
**RATED LOAD vs. LOAD CENTER**  
STANDARD CARRIAGE  
U. S. CUSTOMARY



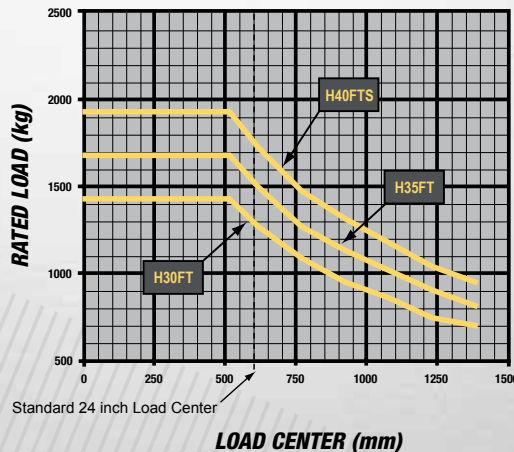
**RATED LOAD vs. LOAD CENTER**  
INTEGRAL CARRIAGE  
U. S. CUSTOMARY



**RATED LOAD vs. LOAD CENTER**  
STANDARD CARRIAGE  
METRIC



**RATED LOAD vs. LOAD CENTER**  
INTEGRAL CARRIAGE  
METRIC



**TRUCK CONFIGURATION:**

- 3-STAGE FFL MAST (169.2 in MFH for H30FT, 163.4 in MFH for H35FT & 151.6 in MFH for H40FTS)
- 38.5" (978 mm) standard carriage with load backrest extension (LBE).
- Basic truck equipped with the Mazda 2.0L LP engine with single-speed electronic powershift transmission.
- Standard tires and tread.

# STANDARD FEATURES AND OPTIONS

## STANDARD EQUIPMENT

Complete truck equipped with:

- Mazda 2.0L LPG
- Electronic powershift transmission
  - Electronic inching
  - Electronic shift control
  - Neutral start switch
- Anti-restart protection
- MONOTROL® pedal
- 2-stage limited free lift (LFL) VISTA™ mast with maximum fork height of 127" (3232 mm)
- 38.6" (977 mm) wide hook-type carriage with 48" (1219 mm) tall load backrest extension
- 42" (1067 mm) long forks
- 6 degrees forward and 6 degrees backward mast tilt
- 3-function valve and hose group
- Integrated dashboard display includes:
  - LCD Display:
    - Hour meter
    - Coolant temp
    - Clock
    - Messages
  - Service/Operational Indicator Lights:
    - Alternator
    - Transmission oil temperature
    - Engine oil pressure
    - Brake fluid level
    - Fasten seat belt
    - Low LP fuel level
    - Engine malfunction
    - System malfunction
    - Park brake
    - Water temp
    - Forward, reverse and neutral direction indicators
- Hydrostatic power steering
- Non-suspension vinyl seat
- Electronic horn
- Adjustable steer column
- Rubber floor mat
- High air intake
- Integral tie downs
- Operator restraint system
- Serpentine core radiator
- Single pedal inch brake
- Hyster Stability System (HSS®)
- Cowl-mounted hydraulic control levers
- Swing-out LPG tank bracket
- 85" (2149 mm) overhead guard
- 12 months / 2,000 hours manufacturer's warranty
- 12 months / 4,000 hours manufacturer's powertrain warranty
- Operator's manual
- UL Classification LP

## OPTIONAL EQUIPMENT

- DuraMatch™ transmission
  - Auto deceleration system
  - Controlled power reversal feature
  - Controlled rollback on ramps
- Powertrain protection system
- Premium electronic monitoring
- High air intake with precleaner
- 2-stage LFL 83" (2132 mm) trucker's style mast
- Keyless start (with auxiliary key switch)
- TouchPoint electro-hydraulic controls
- Rear drive handle with horn button
- Square-wave anti-clog radiator
- 82" (2082 mm) short overhead guard
- Polycarbonate overhead guard rain top
- Full-suspension seat – vinyl or cloth
- Semi-suspension seat - vinyl or cloth
- High-visibility non-cinch seat belt with or without interlock
- Dual inch brake pedals
- EZXchange LP tank bracket
- Password protection
- Dual side view mirrors
- Audible alarm - reverse activated 82-102 dB(A) self-adjusting
- Visible alarm amber strobe light - continuous activated, overhead guard mounted
- Various light packages
  - Two brake/back-up high intensity LED lights
  - Two front and one rear halogen or LED work lights
  - Two front, one rear halogen or LED work light and two brake/tail/back-up high intensity LED lights
- Parts publications - printed or CD, serial number specific
- UL Classification LPS
- Pneumatic shaped solid tires
- Various tread widths available
- Operator pre-shift checklist
- Load weight display
- Impact monitor

# STANDARD FEATURES AND OPTIONS

## CAPACITY:

Model H30FT: 3000 lbs. at 24" (1360 kg at 610 mm) load center.

Model H35FT: 3500 lbs. at 24" (1587 kg at 610 mm) load center.

Model H40FTS: 4000 lbs. at 24" (2721 kg at 610 mm) load center.

## Rated capacities are for trucks equipped with:

- 3-stage full free lift (FFL) VISTA™ mast to 157" (4000 mm) maximum fork height
- 38.5" (977 mm) hook-type carriage with 42" (1067 mm) long forks
- 48" (1219 mm) tall load backrest extension (LBE)
- Standard tread width

## MASTS

Masts are available in 2-stage limited free lift (LFL) and 2- or 3-stage full free lift (FFL) VISTA™. Masts feature flush-faced, nested-channel design and full-radius, angled load rollers provides increased capacity at height while affording shorter overall length.

## CARRIAGE

Hook-type carriages have an overall width of 38.5" (977 mm) without load backrest extension (LBE), or 39.7" (1010 mm) with LBE. H30-35FT, H40FTS trucks feature ITA Class II Mounting. Minimum inside-to-inside fork spacing: 0.12" (3 mm). Maximum outside-to-outside spacing: 37.7" (960 mm).

## FORKS

H30-40FTS series features: 1.6" x 3.9" x 36" to 60" (40 x 100 x 914 to 1525 mm) long pallet forks.

Polished and tapered forks are also available.

## ENGINES

The Mazda 2.0L LPG engine is an emissions compliant powerplant. Configurations are specified as follows:

Mazda 2.0L emissions compliant engines feature:

- 4-cylinder overhead valve and overhead camshaft design
- Cast iron block, aluminum cylinder head with hardened exhaust valve seats
- Electronically controlled LPG fuel system
- Spin-on full flow oil filter
- Single barrel carburetor
- Electronic governor
- Heavy duty air cleaner with high air intake
- Engine Control Unit (ECU)
- Three-way catalytic converter exhaust system
- 2.0L LPG engine produces 41 horsepower

## TRANSMISSION

- Standard Electronic Powershift: Single range powershift, electronic inching (requires no adjustment), electronic shift control, and neutral start switch.
- DuraMatch™: All of the features of the standard electronic transmission plus Auto Deceleration System, controlled power reversal, controlled rollback on ramps.

## COOLING SYSTEM

- Multiple cooling system designs:
  - Serpentine core
  - Square-wave anti-clog
- All radiators utilize cross-flow aluminum cores, pusher type fans and permanently lubricated water pump.
- "Knife-edge" type fan shrouds that direct air flow through the counterweight air passages.
- 15 psi operating system pressure

## ELECTRICAL SYSTEM

- CANbus electrical system simplifies truck wiring and enhances truck dependability
- IP66 sealed automotive-style electrical connectors
- Standardized wire routing, all wires are color coded, and marked with numbers for easy identification
- Vehicle System Manager (VSM) directly or indirectly controls all electrical functions except those controlled by the Engine Control Unit (ECU)
- 12-volt maintenance free battery provides 475 cold cranking amps
- On-board diagnostics monitoring and feedback
- Anti-restart protection

## HYDRAULIC SYSTEM

Manual Hydraulic Control Valve & TouchPoint Electro-Hydraulic Control Valve

- Tilt and auxiliary systems have 2250 psi (15.5 Mpa) relief pressure in all valve variations
- Hydraulic system is protected by a replaceable 3-micron paper element in-tank filter assembly
- Hydraulic breather filter includes an anti-splash baffle and is rated at 3-micron absolute
- O-ring face seal fittings with captive O-ring grooves are used on all high pressure connections
- Emergency lowering valve allows load to be lowered in the event of battery power loss
- 100 Mesh suction line strainer

## STEER AXLE / STEER SYSTEM

- Equal-area, double-ended, hydrostatic steering cylinder is mounted in cast ductile iron axle frame
- Elastomeric axle mounts absorb shock and allow lubrication free articulation
- Axle assembly utilizes synthetic boots and seals to retain lubricants and shield components against destructive grit and reduce lube points
- Wheel hubs rotate on large, tapered roller bearings
- Top spindle bearings lubricated through easy access lube fittings
- Hydrostatic steer system provides smooth, precise steering with only 4 turns lock-to-lock
- Hyster Stability System (HSS®) enhances lateral stability by limiting steer axle articulation without a compromise in uneven surface travel

## BRAKES

- Asbestos free, self-energizing, automatically adjusting drum brake assemblies
- Single circuit master cylinder with sealed fluid reservoir and magnetic fluid level sensor
- Ratchet-type, hand-activated parking brake lever allows controlled application

## OPERATOR COMPARTMENT

- Cowl-mounted hydraulic hand levers
- TouchPoint electro-hydraulic seatside mini-levers with full adjustable armrest (optional)
- 12-inch textured steering wheel with spinner knob
- Foot controls with single braking/inching pedal (dual pedals are optional)
- Integrated dashboard display is backlit, allowing easy visibility under all lighting conditions
- Grid-style overhead guard offers superb visibility at extended heights
- Infinitely adjustable tilt steer column
- MONOTROL® pedal controls engine speed and truck direction, freeing operator's hands to operate steering and hydraulic levers

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



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Part No. H30-40FTS/TG  
3/2014 Litho in U.S.A.

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