

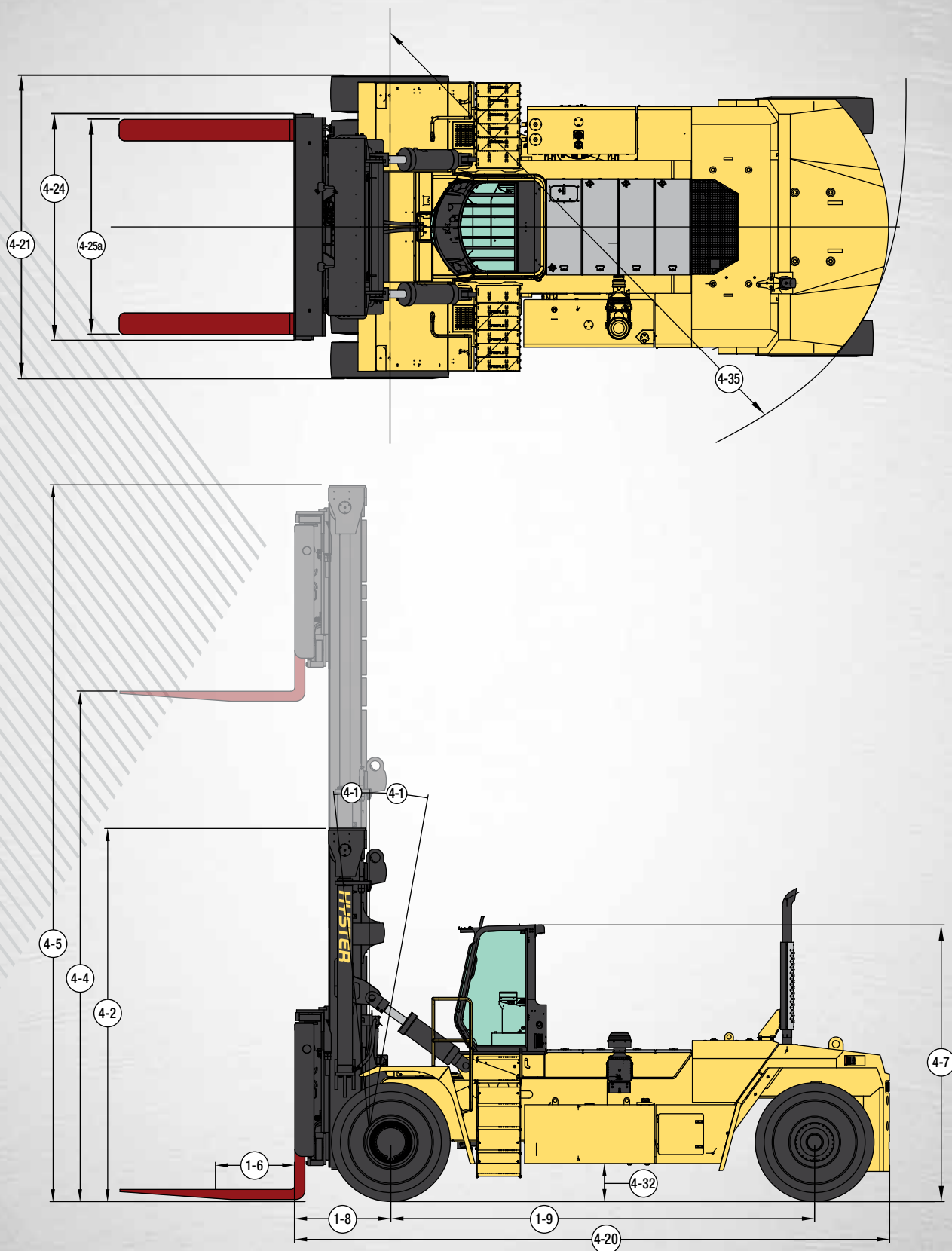
H800-1050HD/S SERIES



**STRONG PARTNERS.
TOUGH TRUCKS.™**

TECHNICAL GUIDE
Heavy Duty Forklift Truck

H800-1050HD/S DIMENSIONS



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

H800-970HD SPECIFICATIONS

		Description	Units		English	Metric	English	Metric	English	Metric
					HYSTER		HYSTER		HYSTER	
GENERAL	1-1	Manufacturer			H800HD		H900HD		H970HD	
	1-2	Model designation								
	1-5	Rated load capacity - FP	lbs	kg	80,000	36,287	90,000	40,823	97,000	43,998
	1-6	Load center	in	mm	48	1,219	48	1,219	48	1,219
	1-8	Load distance	in	mm	49.3	1,252	49.3	1,252	49.3	1,252
WEIGHTS	1-9	Wheelbase	in	mm	212	5,385	212	5,385	212	5,385
	2-1	Total truck weight without load	lbs	kg	115,390	52,340	122,312	55,480	127,229	57,710
	2-2a	Axle loading with load front	lbs	kg	185,078	83,950	199,958	90,700	210,312	95,396
	2-2b	rear	lbs	kg	10,312	4,677	12,354	5,604	13,917	6,313
	2-3a	Axle loading without load front	lbs	kg	68,366	31,010	68,657	31,142	68,798	31,206
WHEELS	2-3b	rear	lbs	kg	47,024	21,330	53,655	24,338	58,431	26,504
	3-1	Tire type			Pneumatic		Pneumatic		Pneumatic	
	3-2	Tire size front			18.00 x 25-40PR		18.00 x 25-40PR		18.00 x 25-40PR	
	3-3	rear			18.00 x 25-40PR		18.00 x 25-40PR		18.00 x 25-40PR	
	4-1	Mast tilt, forward / back	degrees		6 / 10		6 / 10		6 / 10	
DIMENSIONS	4-2	Height of mast lowered	in	mm	203	5,160	203	5,160	203	5,160
	4-4	Lift height (top of fork)	in	mm	173	4,410	173	4,410	173	4,410
	4-5	Height extended	in	mm	288	7,316	288	7,316	288	7,316
	4-7	Height to top of operator compartment	in	mm	153	3,880	153	3,880	153	3,880
	4-19	Overall length	in	mm	398	10,120	398	10,120	398	10,120
	4-20	Length to load face	in	mm	302	7,680	302	7,680	302	7,680
	4-21	Overall width of truck	in	mm	165	4,200	165	4,200	165	4,200
	4-22a	Fork thickness	in	mm	5.5	140	5.5	140	5.5	140
	4-22b	width	in	mm	11.8	300	11.8	300	11.8	300
	4-22c	length	in	mm	96	2,440	96	2,440	96	2,440
	4-24	Carriage width	in	mm	124	3,150	124	3,150	124	3,150
	4-25a	Fork spread, min	in	mm	42	1,067	42	1,067	42	1,067
	4-25b	Fork spread, max	in	mm	118	2,997	118	2,997	118	2,997
	4-31	Ground clearance, under mast with load	in	mm	15	371	15	371	15	371
	4-32	Ground clearance, center of wheelbase	in	mm	19	472	19	472	19	472
	4-33	Aisle width (right angle stack) - with 96" load	in	mm	426	10,820	426	10,820	426	10,820
	4-35	Outside turning radius	in	mm	280	7,100	280	7,100	280	7,100
	8-7	Hydraulic tank capacity	gal	liter	174	660	174	660	174	660
	8-8	Fuel tank capacity	gal	liter	219	830	219	830	219	830
	10-4	DEF tank capacity	gal	liter	15	56	15	56	15	56
PERFORMANCE	PERFORMANCE		CUMMINS QSL9 363HP TIER 4 FINAL ENGINE							
	5-1a	Travel speed with load	mph	km/h	12.4	20.0	12.4	20.0	12.4	20.0
	5-1b	without load	mph	km/h	13.7	22.0	13.7	22.0	13.7	22.0
	5-2a	Lifting speed with load	ft/min	m/s	51	0.26	51	0.26	51	0.26
	5-2b	without load	ft/min	m/s	59	0.30	59	0.30	59	0.30
	5-3a	Lowering speed with load	ft/min	m/s	98	0.50	98	0.50	98	0.50
	5-3b	without load	ft/min	m/s	85	0.43	85	0.43	85	0.43
	5-5	Drawbar pull - 1 mph (1.6 km/h)	lbs	kN	83,629	372	83,629	372	83,404	371
	5-6	Drawbar pull - Max	lbs	kN	108,808	484	108,808	484	81,830	364
	5-7	Gradeability no load / rated load - 1 mph (1.6 km/h)	%		47/44	47/44	45/41	45/41	43/38	43/38
	5-8	Gradeability no load / rated load - Max	%		47/62	47/62	45/58	45/58	43/53	43/53
	PERFORMANCE		CUMMINS QSM11 365HP TIER 3 ENGINE							
	5-1a	Travel speed with load	mph	km/h	12.4	20.0	12.4	20.0	12.4	20.0
	5-1b	without load	mph	km/h	13.7	22.0	13.7	22.0	13.7	22.0
	5-2a	Lifting speed with load	ft/min	m/s	51	0.26	51	0.26	51	0.26
	5-2b	without load	ft/min	m/s	59	0.30	59	0.30	59	0.30
	5-3a	Lowering speed with load	ft/min	m/s	98	0.50	98	0.50	98	0.50
	5-3b	without load	ft/min	m/s	85	0.43	85	0.43	85	0.43
	5-5	Drawbar pull - 1 mph (1.6 km/h)	lbs	kN	77,334	344	77,334	344	77,109	343
	5-6	Drawbar pull - Max	lbs	kN	106,335	473	106,335	473	106,110	472
	5-7	Gradeability no load / rated load - 1 mph (1.6 km/h)	%		47/40	47/40	45/38	45/38	43/35	43/35
	5-8	Gradeability no load / rated load - Max	%		47/60	47/60	45/56	45/56	43/51	43/51

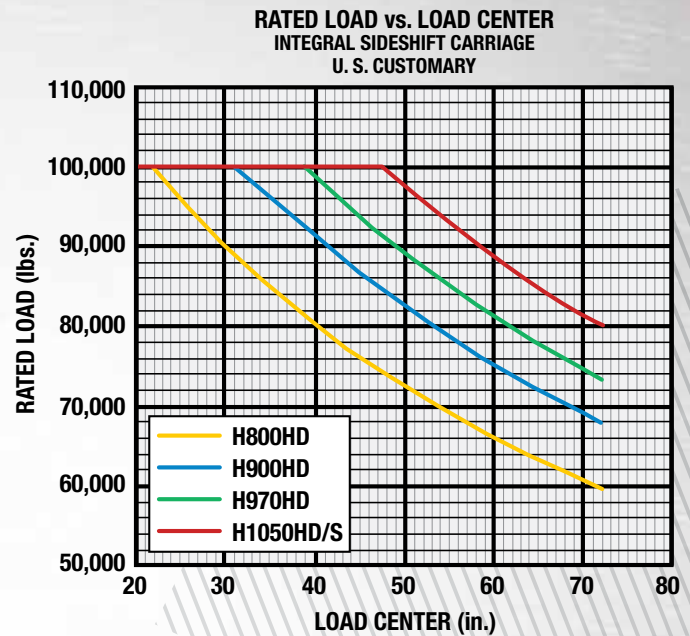
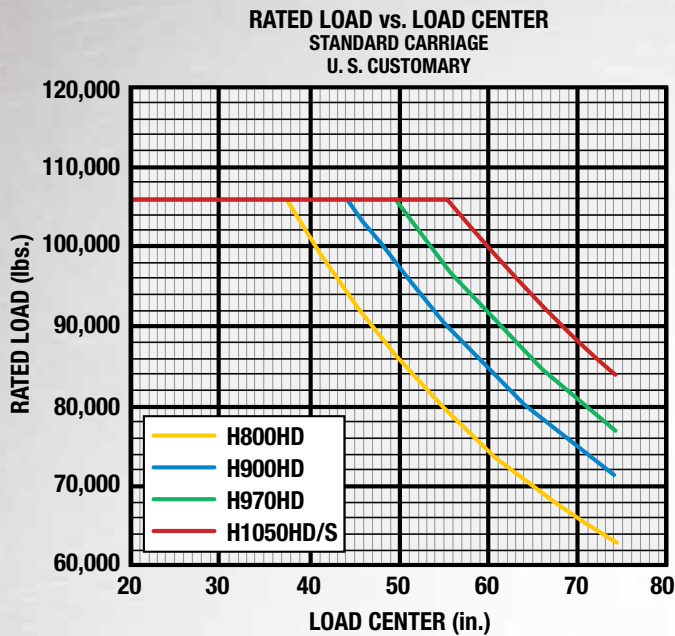
CERTIFICATION: These Hyster® lift trucks meet design specifications of Part II ANSI B56.1-1969, as required by OSHA Section 1910.178(a)(2) and also comply with Part III ANSI B56.1-revision in effect at time of manufacture. Certification of compliance with the applicable ANSI standards appears on the 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.

H1050HD/S SPECIFICATIONS

GENERAL	Description		Units		English	Metric	English	Metric
	1-1	Manufacturer			HYSTER		HYSTER	
	1-2	Model designation			H1050HDS		H1050HD	
	1-5	Rated load capacity - FP	lbs	kg	105,000	47,627	105,000	47,627
WEIGHTS	1-6	Load center	in	mm	48	1,219	48	1,219
	1-8	Load distance	in	mm	49.3	1,252	49.3	1,252
	1-9	Wheelbase	in	mm	212	5,385	232	5,900
	2-1	Total truck weight without load	lbs	kg	133,402	60,510	126,611	57,430
WHEELS	2-2a	Axle loading with load front	lbs	kg	222,951	101,129	217,353	98,590
	2-2b	rear	lbs	kg	15,451	7,008	14,259	6,468
	2-3a	Axle loading without load front	lbs	kg	69,766	31,645	68,374	31,014
	2-3b	rear	lbs	kg	63,636	28,865	58,238	26,416
DIMENSIONS	3-1	Tire type			Pneumatic		Pneumatic	
	3-2	Tire size front			18.00 x 25-40PR		18.00 x 25-40PR	
	3-3	rear			18.00 x 25-40PR		18.00 x 25-40PR	
	4-1	Mast tilt, forward / back		degrees	6 / 10		6 / 10	
PERFORMANCE	4-2	Height of mast lowered	in	mm	203	5,160	203	5,160
	4-4	Lift height (top of fork)	in	mm	173	4,410	173	4,410
	4-5	Height extended	in	mm	288	7,316	288	7,316
	4-7	Height to top of operator compartment	in	mm	153	3,880	153	3,880
	4-19	Overall length	in	mm	398	10,120	419	10,635
	4-20	Length to load face	in	mm	302	7,680	323	8,195
	4-21	Overall width of truck	in	mm	165	4,200	165	4,200
	4-22a	Fork thickness	in	mm	5.5	140	5.5	140
	4-22b	width	in	mm	11.8	300	11.8	300
	4-22c	length	in	mm	96	2,440	96	2,440
	4-24	Carriage width	in	mm	124	3,150	124	3,150
	4-25a	Fork spread, min	in	mm	42	1,067	42	1,067
	4-25b	Fork spread, max	in	mm	118	2,997	118	2,997
	4-31	Ground clearance, under mast with load	in	mm	15	371	15	371
	4-32	Ground clearance, center of wheelbase	in	mm	19	472	19	472
	4-33	Aisle width (right angle stack) - with 96" load	in	mm	426	10,820	426	10,820
	4-35	Outside turning radius	in	mm	280	7,100	307	7,791
	8-7	Hydraulic tank capacity	gal	liter	174	660	174	660
	8-8	Fuel tank capacity	gal	liter	219	830	219	830
	10-4	DEF tank capacity	gal	liter	15	56	15	56
PERFORMANCE	PERFORMANCE		CUMMINS QSL9 363HP TIER 4 FINAL ENGINE					
	5-1a	Travel speed with load	mph	km/h	12.4	20.0	12.4	20.0
	5-1b	without load	mph	km/h	13.7	22.0	13.7	22.0
	5-2a	Lifting speed with load	ft/min	m/s	51	0.26	51	0.26
	5-2b	without load	ft/min	m/s	59	0.30	59	0.30
	5-3a	Lowering speed with load	ft/min	m/s	98	0.50	98	0.50
	5-3b	without load	ft/min	m/s	85	0.43	85	0.43
	5-5	Drawbar pull - 1 mph (1.6 km/h)	lbs	kN	83,404	371	83,404	371
	5-6	Drawbar pull - Max	lbs	kN	81,606	363	81,830	364
	5-7	Gradeability no load / rated load - 1 mph (1.6 km/h)	%		41/35	41/35	44/37	44/37
	5-8	Gradeability no load / rated load - Max	%		41/49	41/49	44/51	44/51
	PERFORMANCE		CUMMINS QSM11 365HP TIER 3 ENGINE					
	5-1a	Travel speed with load	mph	km/h	12.4	20.0	12.4	20.0
	5-1b	without load	mph	km/h	13.7	22.0	13.7	22.0
	5-2a	Lifting speed with load	ft/min	m/s	51	0.26	51	0.26
	5-2b	without load	ft/min	m/s	59	0.30	59	0.30
	5-3a	Lowering speed with load	ft/min	m/s	98	0.50	98	0.50
	5-3b	without load	ft/min	m/s	85	0.43	85	0.43
	5-5	Drawbar pull - 1 mph (1.6 km/h)	lbs	kN	77,109	343	77,109	343
	5-6	Drawbar pull - Max	lbs	kN	106,110	472	106,110	472
5-7	Gradeability no load / rated load - 1 mph (1.6 km/h)	%		41/32	41/32	44/34	44/34	
5-8	Gradeability no load / rated load - Max	%		41/47	41/47	44/49	44/49	

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.

H800-1050HD/S RATED CAPACITIES



TRUCK CONFIGURATION:

- 2-stage mast - 281" (7153 mm) maximum fork height
- 96" forks

H800-1050HD/S SPECIFICATIONS

H800-1050HD/S MAST DIMENSIONS

4.4 Lift Height (Top of Fork)		4.2 Mast Lowered Height		4.3 Freelift (Top of Fork)		4.5 Overall Extended Height	
2 Stage Mast Dimensions							
in	mm	in	mm	in	mm	in	mm
173	4410	203	5160	0	0	288	7,316
281	7150	257	6530	0	0	396	10,059
341	8670	287	7295	0	0	456	11,583
365	9280	299	7600	0	0	480	12,193
389	9890	311	7905	0	0	504	12,803
503	12,670	372	9,454	0	0	621	15,779

POWERTRAINS

				363HP Tier 4 Final		365HP Tier 3	
1-3	Power type			Diesel		Diesel	
7-1	Engine manufacturer / model			Cummins QSL 9		Cummins QSM 11	
	EPA tier compliance			Tier 4 Final		Tier 3	
7-2a	Engine power output - rated	hp	kW	350	261	335	250
7-2b	Engine power output - peak	hp	kW	363	271	365	272
7-3	Governed speed	rpm		2100		2100	
7-4	Number of cylinders / displacement	#	liters	6 / 8.9		6 / 10.8	
7-5	Max engine torque	lb-ft	N-m	1200	1627	1235	1674
	Turbocharger	Type		Variable geometry, water cooled		Wastegate, water cooled	
7-9	Alternator output	Amps		120		120	
8-0	Transmission manufacturer / model			SOH TE-32		SOH TE-32	
8-1	Drive control / transmission: number of speeds forward/reverse			Powershift 4F x 4R		Powershift 4F x 4R	
	Drive axle manufacturer / model			Kessler D102		Kessler D102	
5-10	Service brake			Oil immersed (wet) disc		Oil immersed (wet) disc	
5-11	Park brake			Spring apply, dry disc		Spring apply, dry disc	
8-2	Working pressure for attachments	psi	bar	3408	235	3408	235
8-3	Oil flow for attachments	gpm	l/m	26	100	26	100

STANDARD FEATURES & OPTIONS

STANDARD EQUIPMENT

- 173" maximum fork height 2-stage Vista™ mast with 204" lowered height
- 124" wide pin type fork positioner with individual fork control
- 96" long forks (5.5" x 11.8" section)
- Seat-side hydraulic control mini-levers
- Cummins QSL 9L engine delivering 363 peak horsepower with aftertreatment package
- Integrated heavy duty air intake pre-cleaner with dual element filter
- Spicer Off-Highway 4-speed auto-shifting transmission with APC200 shift controller
- Kessler D102 planetary drive axle with wet disc brakes
- Powertrain protection system for engine and transmission, high temperature or low oil pressure
- 219 gallon fuel tank
- 174 gallon hydraulic tank
- 15 gallon DEF tank
- CANbus electrical control system for engine, transmission and hydraulics
- 18.00 x 25-40PR bias pneumatic drive and steer tires
- Directional control lever with direction change interlock system
- Mast tilt: 6° fwd/10° back
- Enclosed cabin module with: seat-side mini-lever hydraulic control; multifunction display panel; interior wide angle mirrors; recirculation fan; telescoping & tilting steering column; steering wheel with spinner knob; floor mat; isolated mounting for low noise and vibration; 24-12V DC converter; front, top & rear wipers; heater
- Mechanical, full-suspension cloth seat with integrated, adjustable armrest and seat belt
- Operator restraint system
- Operator presence system
- Left & right hand side stairway & handrails
- Exterior mirrors mounted on front fenders
- Electric air horn (112 dBA)
- 24V electrical system
- Halogen light kit includes 6 forward facing and 2 rearward facing lights
- Visible alarm - amber strobe light - key switch activated
- Audible alarm - reverse direction activated
- Non-locking fuel cap
- Lockable battery disconnect switch
- Steer wheel lug protection
- Chain anchor protection
- Operator's manual
- Removable, lightweight deck plates allow access to complete engine compartment for ease of service

OPTIONAL EQUIPMENT

- Cummins QSM 6-cylinder diesel engine
- Masts - various lift heights ranging from 281" through 503" maximum fork height
- Apron-style sideshifting carriage with fork positioners
- High capacity thinline quick disconnect (QD) pin type forks
- Multi-function joystick
- Radial tires
- Larger 18.00 x 33 tires
- Air conditioning
- Various inside-cabin options
- Various seat options
- 2 and 3-point high-visibility seat belts
- High Intensity Discharge (HID) xenon lighting
- Lockable fuel cap
- Hydraulic accumulator
- Traction speed limiter - unconditional; adjustable from 6-15 mph (preset to 12 mph)
- Empty seat engine shutdown - adjustable from 3-15 minutes (preset to 15 minutes)
- Mast tilt indicator
- Automatic greasing system for base truck
- Centralized greasing provision for mast chain sheaves

ENGINE - TIER 4 FINAL*

Cummins QSL 6-cylinder diesel engine delivers rated 350hp (peak 363hp) and 1200 lb-ft of maximum torque. EPA Tier 4 Final compliant engine features cooled exhaust gas recirculation (EGR) with selective catalytic reduction (SCR) for nitrogen oxide (NOx) reduction, a diesel oxidation catalyst (DOC) for particulate matter removal and a diesel exhaust fluid (DEF) delivery system. Innovative selectable ECO performance modes offer excellent fuel economy and maximum productivity. Hibernate idle saves fuel by lowering engine RPM during extended idle periods. Also includes:

- Variable geometry, water cooled turbocharger (VGT)
- 120-amp alternator
- On-demand cooling

OPTIONAL ENGINE - TIER 3

(limited availability for US and Canada): Cummins QSM 6-cylinder diesel engine delivers rated 335 hp (peak 365hp) and 1235 lb-ft of maximum torque. EPA Tier 3 compliant. Also includes:

- Wastegate turbocharger, water cooled
- 120-amp alternator
- On-demand cooling

ELECTRICAL SYSTEM

- Sealed Deutsch connectors
- CANbus system for easy diagnostics of engine, transmission and hydraulics

COOLING SYSTEM

- Hydraulically-driven, on-demand cooling fan (saves fuel and reduces noise)
- Separately serviceable 4-section heavy duty side-by-side radiator

AUTOMATIC THROTTLE-UP**

All models feature automatic throttle-up, a feature that provides an immediate response to lift inputs when the operator activates the hydraulic controls.

- Seamless rev-ups keep the engine operating in the most efficient band
- Delivers good fuel economy
- Improves operator ergonomics and productivity

STEER AXLE

- Kessler steer axle with double acting cylinder features a bearing free design

* Tier 4 Final requires ultra-low sulfur diesel fuel and low ash-oil.

** Automatic throttle-up is only activated when the transmission is in neutral.



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Part No. H800-1050HD/S TG
10/2014 Litho in U.S.A.

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