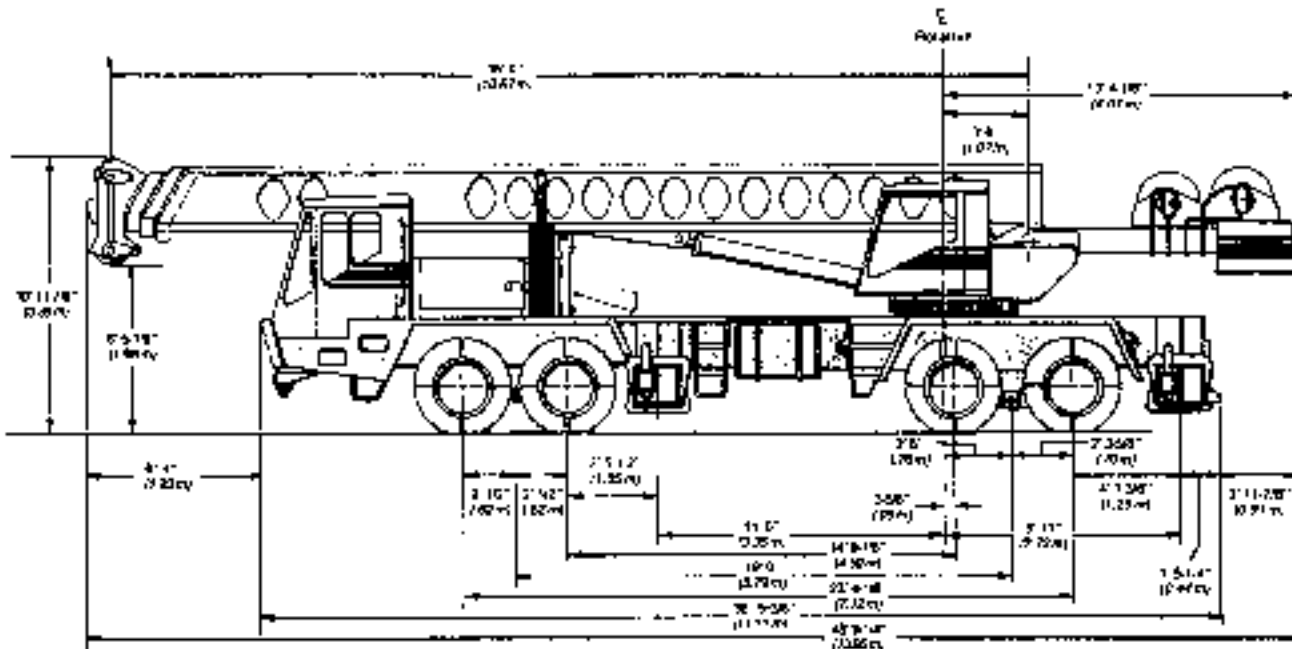


Specifications

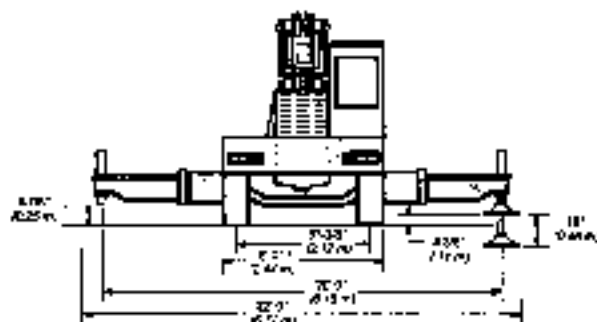
Hydraulic Truck Crane

HTC-840

40 Ton (36.29 metric ton)



Not to Scale



- Fender to fender

Not to Scale

General dimensions	feet	meters
Following of counterweight	13' 8 5/8"	4.18
Ground clearance - Standard tires	8 1/2"	.22
Ground clearance - Optional tires	9"	.23
Turning radius C/L of tire - Std. tires	44' 2"	13.46
Turning radius - (wall to wall) (outside front bumper)	48' 4 1/2"	14.74

GENERAL INFORMATION ONLY

Upperstructure

■ Boom

Link-Bell patented design. 35' 0" — 85' 0" (10.67 m — 25.91 m) three-section boom with two power sections. Boom side plates have diamond shaped impressions for superior strength to weight ratio and are offset welded to carefully machined 100,000 p.s.i. (689.5 MPa) steel angle chords for maximum integrity and strength. Boom telescope sections are supported by wear shoes both vertically and horizontally.

Load Moment Indicator — Audio-visual warning system with anti-two block and function kickouts. Constant display of boom length and angle, tip height, radius of load, machine configuration, allowed load, actual load and % of allowed load. Presettable alarms for maximum and minimum boom angles, maximum tip height and maximum boom length.

Optional boom — 35' 0" — 110' 0" (10.67 m — 32.53 m) four-section boom includes base section, two power sections, and manual fourth section. Fourth section is power pinned by manually activating a cylinder locking system.

Boom head — **Standard:** Four 16-3/8" (0.42 m) root diameter head sheaves with five 16-3/8" (0.42 m) root diameter head sheaves available to handle up to 10 parts of 3/4" (19 mm) wire rope. Two removable wire rope guards and rope dead end lugs are provided on each side of the boom head.

Auxiliary lifting sheave — **Optional:** Single 16-3/8" (0.42 m) root diameter head sheave with removable wire rope guards, mounted to boom. For use with one or two parts of line off the optional auxiliary winch. Does not affect erection of jib or use of main head sheaves for multiple reeving.

Boom elevation — Two Link-Bell designed double-acting hydraulic boom hoist cylinders with integral holding valves. Hand or foot controls for boom elevation from -3° to 78°.

■ Fly

Optional — 33' 0" (10.06 m) stowable one-piece lattice type.

■ Jib

Optional — 25' 0" (7.62 m) stowable A-frame. Can be offset 5°, 17.5°, and 30°. Attaches to fly only.

■ Cab and Controls

Environmental cab; isolated from sound and vibration by rubber mounts. All tinted and tempered safety glass windows. For maximum visibility and ventilation, sliding right side and rear window and swing up roof window supported with two gas cylinders. Slide-by-door opens to 3' 0" (0.91 m) width. Six-way adjustable operator's seat. Control levers for swing, boom telescope, winch and boom hoist, with foot control for swing brake and optional boom hoist. Outrigger controls, sight level bubble.

Cab instrumentation — Dash mounted gauges for hydraulic oil temperature, fuel, water temperature, and oil pressure.

■ Swing

Bi-directional hydraulic swing motor mounted to a two-stage planetary reducer for 360° continuous smooth swing at 2.45 r.p.m.

Swing brake — **Standard:** Foot operated, spring released disc brake mounted on the speed reducer.

Swing lock — **Standard:** 360° position pin-type controlled from the operator's cab. Two position house lock for travel and pick and carry modes.

Counterweight — Pinned to upperstructure frame. 9,000 lb (4,082 kg) counterweight with single-winch system. 8,050 lb (3,657 kg) counterweight with two-winch system. Optional counterweight removal system is available.

■ Hydraulic system

Main pump — Three-section gear-type pump. Combined pump capacity of 185 gpm (700 lpm) powered by carrier engine (1:1 ratio) with pump disconnect. Pump disconnect is a jaw-type clutch engaged/disengaged from carrier cab. Maximum system operating pressure is 2,900 p.s.i. (204 kg/cm²). Hydraulic oil cooler is standard.

Reservoir — Link-Bell, 145 gallon (548.63 l) capacity. Diffusers for deaeration.

Filtration — One six-micron filter located inside the hydraulic reservoir.

Control valves — Six separate control valves allow simultaneous operation of all crane functions.

■ Load Hoist System

Standard — Model 2M main winch with two-speed motor and automatic brake; power up/power down mode of operation. Bi-directional gear type hydraulic motor.

Optional — Model 2M auxiliary winch with two-speed motor and automatic brake, power up/power down mode of operation. Bi-directional, gear-type hydraulic motor.

Optional — Model 3M winch with power up/power down, two-speed motor and exclusive controlled line gravity freelift. Available on main or both winches.

Line pulls and speeds — Maximum line pull is 15,870 lbs (7,199 kgs.) and maximum line speed is 548 f.p.m. (167.03 m/min) on 17" (0.43 m) root diameter drums.

■ Additional Upperstructure Equipment - Optional

Boom hoist foot control, drum rotation indicators, propane heater, diesel heater, 40-ton (36.29 metric ton) hook block, 8-1/2 ton (7.72 metric ton) ball and swivel, roof window windshield wiper, flood lights, lifting lug package, hand throttle, air conditioning windshield washer and/or rotating beacon, cab mounted spotlight, tachometer and engine monitoring system.

GENERAL INFORMATION ONLY

Carrier

■ Type

Link-Belt 8'0" (2.44 m) wide, 228" (5.79 m) wheelbase.
Standard — 8 x 4 drive

Frame — All-welded high strength alloy steel plate construction with box-type design and integral 100,000 p.s.i. (689.5 MPa) steel outrigger boxes

■ Outriggers

Standard — Power hydraulic, double box, dual beam outriggers, front and rear. Vertical jack cylinders, each equipped with integral holding valve. Beams extend to 20' 0" (6.10 m) centerline-to-centerline and retract to within 8' 0" (2.44 m) overall width. Equipped with stowable, lightweight 24" (61 m) diameter floats. Controls and sight level bubble located in upperstructure cab

Front bumper outrigger— Standard; Front center vertical jack mounted under bumper with 20" (51 m) square lightweight float. Provides 360° tilting capacities

■ Axles

Front— Tandem, 83.31" (2.12 m) track

Rear— Tandem, 71 8" (1.82 m) track, B.83 to 1.0 ratio with interaxle differential lockout

■ Suspension

Front— Spring suspension with torque rods

Rear— Solid mount 54" (1.37 m) bogie beam

■ Wheels

Front — Cast six-spoke.

Rear — Cast six-spoke.

■ Tires

Standard Front — 15.0 x 22.5 (16 PR) transport type tubeless.

Standard Rear — 11.0 x 20.0 (14 PR) transport type with tube.

Optional Front — 16.5 x 22.5 (16-PR) or 18.00 x 22.5 (16-PR) transport type tubeless

Optional Rear — 12.00 x 20.0 (14 PR) transport type

Optional Front — 445-65R22.5 XZY lug type radials

Optional Rear — 12R20 XZA transport type radials

Optional Rear — 12R20 XZY lug type radials

■ Brakes

Full br on all wheels. Air dryer is standard.

■ Service

Front — 8 x 4 Cam Type 16-1-2" x 6" (.42 m x .15 m) shoe diameter

Rear — Cam-type 16-1-2" x 7" (.42 m x .78 m) shoe diameter

Parking & emergency — One spring set, air released chamber per rear axle end. Parking brake applied with valve mounted on corner dash. Emergency brakes apply automatically when air pressure drops below 60 p.s.i. (4.14 Bars) in both systems.

■ Steering

Sheppard Steering, rack-and-pinion design. Provides wall-to-wall turning radius of 55' 7" (16.94 m)

Clutch — Lipe-Rollway 14" (3.6 m) diameter, spring loaded, double plate dry disc

Universals — Rockwell, easy service type.

■ Transmission

Standard — Fuller Roadranger RTO-6613; 13 speeds forward, 3 reverse

■ Electrical System

Two 12-volt batteries, 2,230 cold cranking amps available, 80 amp alternator.

Lights — Four dual-beam sealed headlights, front and rear directional signals, stop and tail lights, four-way emergency flashers, back-up lights, front, rear and side clearance lights with integral reflectors and license plate light

■ Carrier Cab

One-man cab. Acoustical insulation with vinyl covering. Equipped with electric windshield wiper and washer, horn, four-way adjustable seat with seat belt, dome and dash lights, cigar lighter, ashtray, 22,400 BTU capacity heater, defroster, door and window locks, fire extinguisher, LHRH rear view mirrors, tilt/telescoping steering wheel and sliding LHRH and rear tinted windows

Cab instrumentation — Standard; illuminated instrument panel with speedometer, odometer, tachometer, voltmeter, hourmeter, front and rear air pressure gauges, low air pressure light and warning buzzer, automotive-type ignition (common with upper), engine oil pressure gauge, water temperature gauge, fuel gauge, turn signal indicator, high beam light switch, adjustable defroster vents and circuit breakers.

■ Additional Equipment - Standard

Front and rear ladders, air dryer, back-up warning alarm, cab steps, access ladder to rear carrier deck with hand grab rails, front/rear tow loops, mud flaps, and skid-resistant finish on carrier deck

■ Additional Equipment - Optional

Engine block heater, ether injection starting package, spare tire and rim assemblies, towing shackles and engine monitoring system

GENERAL INFORMATION ONLY

Travel Speeds and Gradeability [Ⓢ]

Engine	Maximum Speed		Maximum Gradeability at peak engine torque
	Mph	Km/h	
Cummins 6CTA 8.3	50.43	81.16	44.2%

[Ⓢ] Maximum speed based on full load r.p.m. Gradeability [Ⓢ] based on peak torque of the engine, machine equipped with standard tires and C.V.W.

Engine	Cummins 6CTA 8.3
Cylinders - cycle	6 - 4
Bore	4.5" (0.114 m)
Stroke	5.32" (0.14 m)
Displacement	504.5 cu in (8.267 cm ³)
Gross engine power	234 hp @ 2200 rpm
Peak torque	640 ft. lbs. (867.72 J)
Electric system	12 volt negative ground
Fuel capacity	100 gallons (378.5 L)
Alternator	80 amps
Crankcase capacity	23.7 quarts (22.43 L)
Air compressor	13.2 c.i.m. (0.37 m ³ /min)

Axle Loads

Base machine includes 35'-85' (10.67m - 25.91m) three-section boom with four-sheave head machinery, main winch with two-speed hoisting and power up/down, 600' (182.88 m) 3" (79mm) wire rope, 84' 8" (2.4m) cable with Cummins 6CTA 8.3 diesel engine, front bumper bumper, Rearranger transmission, full fuel and hydraulics.	G.V.W. [Ⓢ]		Upper facing front				Upper facing rear			
			Front axle		Rear axle		Front axle		Rear axle	
	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.
	62,112	28,168	31,551	14,308	30,561	13,860	14,655	6,645	47,457	21,523
35'-110' (10.67m - 33.53m) 4-section boom	1,667	885	1,655	750	297	135	-1,141	-517	3,093	1,403
Counterweight for single winch	9,003	4,082	-4,416	-2,003	13,416	6,084	6,785	3,077	2,215	1,005
Counterweight for two winches	8,053	3,651	-3,950	-1,791	12,000	5,442	6,069	2,752	1,981	899
Freefall main winch with 600' (182.88 m) rope	442	200	-128	-58	570	259	243	110	199	90
Power up/down aux. winch with 465' (141.73 m) rope	1,758	797	-529	-240	2,287	1,037	901	459	767	348
Freefall aux. winch with 485' (147.73 m) rope	2,200	996	-591	-268	2,791	1,266	1,170	530	1,030	467
33' (10.06 m) lattice fly, stowed	1,040	472	918	416	172	55	-644	-292	1,684	764
25' (7.62 m) A-frame jib, stowed	1,178	517	759	344	169	167	-462	-210	1,590	721
Hook block at bumper	800	362	1,321	598	-521	-236	—	—	—	—
Headache ball at bumper	325	147	537	244	-212	-96	—	—	—	—
Auxiliary lifting sheave	150	68	284	129	-134	-61	-245	-111	195	179
Fly and jib stowage brackets	230	104	188	85	42	19	-127	-58	357	162
16.5 X 22.5 front tires and rims	36	16	36	16	—	—	—	—	—	—
18.0 X 22.5 front tires and rims	172	78	172	78	—	—	—	—	—	—
12.0 X 20.0 rear tires with rims and wheels	413	187	—	—	413	187	—	—	—	—
Counterweight removal system	120	54	-53	-25	175	79	86	39	34	15

[Ⓢ] Adjust gross vehicle weight & axle loading according to component weight.

Note: All weights are ± 3%.

Maximum Front Axle Load Table

Tire	Maximum Axle Load @ 50 mph (80.45 km/h)
15.0 X 22.5 H	36,400 lbs. (16,517 kgs.)
16.5 X 22.5 H	39,500 lbs. (17,917 kgs.)
18.0 X 22.5 H	40,000 lbs. (18,142 kgs.)

*For speeds exceeding 50 mph (80.45 km/h) see Operator's Manual

GENERAL INFORMATION ONLY

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A unit of Sunbeam Construction Machinery Co., Ltd

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