

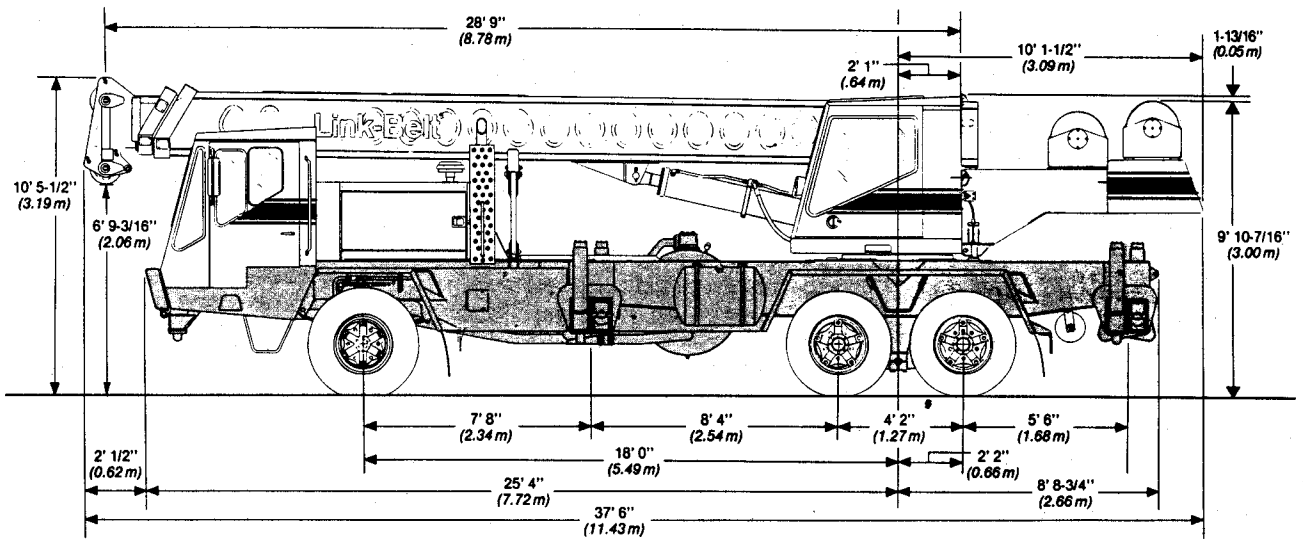
# Specifications

Hydraulic Truck Crane

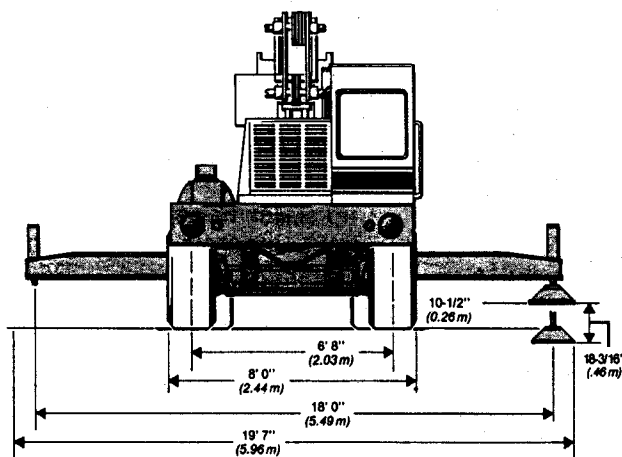
GENERAL INFORMATION ONLY

## HTC-828S

28-ton (25.42 metric ton)



Not to Scale



Not to Scale

General dimensions	feet	meters
Turning radius (4-wheel steer)	43'	13.11
Turning radius — wall to wall (outside front bumper)	53'	16.15
Tailswing — across corners	10' 7"	3.20
Min. ground clearance to axle bowl:		
Standard tires	9.0"	.23
Optional tires	9.6"	.24

## Carrier

## GENERAL INFORMATION ONLY

### ■ Type

8'0" (2.44 m) wide, 216" (5.49 m) wheelbase.

Standard — 6 x 4 drive

Optional — 6 X 6 drive

**Frame** — All-welded high strength 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, single beam outriggers, front and rear. Vertical jack cylinders equipped with integral holding valve. Beams extend to 18' 0" (5.49 m) centerline-to-centerline and retract to 8' 0" (2.44 m) overall width. Equipped with stowable 19" (.48 m) square floats. Controls and sight level bubble located in upperstructure cab.

**Bumper outrigger** — *optional* — a front center vertical jack mounted under bumper with 19" (.48 m) square lightweight float. Hydraulically set.

### ■ Axles

**Front-** Standard Eaton single axle, 80.4" (2.04 m) track.

Optional — Kelsey-Hayes single drive axle, 79.75" (2.03 m) track

**Rear-** Eaton tandem axle, 71.77" (1.82 m) track

### Suspension

**Front-** Burton spring suspension

**Rear-** Hendrickson solid mount 50" (1.27 m) bogie beam

### Wheels

**Front, Standard** — Gunitite cast six-spoke

**Front, Optional** — Disc wheel on 6x6

**Rear** — Gunitite cast five-spoke

### ■ Tires

**Front** — 15.00 x 22.5 H (16 PR) transport

**Rear** — 10.00 x 20.0 F (12 PR) transport

*Optional Front* — 16.5 x 22.5 H (16 PR) transport or lug

*Optional Front* — 14/80R20J (18 PR) radial

*Optional Rear* — 10.00 x 20.0 F (12 PR) lug type

*Optional Rear* — 11.00 x 20.0 F (12 PR) lug type

*Optional Rear* — 11R20G (14 PR) radial

### ■ Brakes

Full air on all wheels. Air dryer is standard.

### Service

**Front** — Standard 6 x 4 Eaton cam-type 16.5" X 6" (.42 m x .15 m) shoe diameter

**Front** — Optional 6 x 6 Kelsey Hayes 15" x 5" (.38 m x .13 m) shoe diameter.

**Rear** — Cam-type 16½" x 7" (.42 m x .18 m) shoe diameter.

**Parking & emergency** — One spring set, air released chamber per rear axle end. Parking brake applied with valve mounted on carrier dash. Emergency brakes apply automatically when air pressure drops below 40 p.s.i. (2.76 Bars) in both systems.

**Steering** — Sheppard Steering, rack-and-pinion design.

*Optional* — Remote Steering Control System. Operated from upperstructure cab. Instrumentation includes toggle switch steering control, wheel position indicator, brake and transmission controls, parking brake control.

**Clutch** — Lipe-Rollway 14" (.36 m) diameter, spring loaded, single plate/dry disc.

**Universals** — Mechanics spider and bearing assembly.

### ■ Transmission

**Standard** — Fuller Roadranger RT-6613, 13 speeds forward, 3 reverse.

*Optional* — Allison MT-653DR 5-speed automatic with lock-up converter.

### ■ Electrical System

Standard; one 12-volt battery. 1,115 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 electrical windshield wiper and washer, horn, six-way adjustable seat with seat belt, dome and dash lights, cigar lighter, ashtray, defroster, door and window locks, fire extinguisher, LH/RH rear view mirrors and tilt/telescoping steering wheel. Sliding LH/RH 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 standard equipment** — Front and rear fenders, air dryer, back-up alarm, two front tow loops, skid-resistant finish on carrier deck, mudflaps.

**Optional equipment** — Engine block heater, ether injection starting package, spare tire and rim assemblies with mounting.

## Upperstructure

## GENERAL INFORMATION ONLY



### Boom

Patented design. 28'9" — 70'3" (8.76 m — 21.41 m) three-section boom with two power sections. Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 p.s.i. (689.5 MPa) steel angle chords for lateral stiffness. Boom telescope sections are supported by wear shoes both vertically and horizontally.

**Boom head** — Four 10-5/8" (0.27 m) root diameter head sheaves handle up to 8 parts of wire rope. Two easily removable wire rope guards, and rope dead end lugs provided on each side of boom head. Optional 12-5/8" (0.32 m) root diameter head sheaves; meets 23:1 ratio European safety code with 14 mm wire rope.

**Auxiliary lifting sheave** — Optional. Single 10-5/8" (0.27 m) root diameter head sheave with removable wire rope guard, mounted to boom. For use with one or two parts of line off the optional auxiliary winch. Does not affect operation of fly or use of main head sheaves for multiple reeving.

**Boom elevation** — One Link-Belt designed hydraulic cylinder with holding valve. Self aligning steel bushings. Hand and optional foot controls for controlling 70'3" boom elevation from -3° to 80°. Boom angle indicator standard.

### Fly

Optional. 24' 0" (7.32 m) stowable one-piece lattice type.

### Cab and Controls

Environmental cab; isolated from sound and vibration by rubber mounts. All tinted and tempered safety glass windows. Sliding rear window and swing up roof window for maximum visibility and ventilation. Slide-by-door opens to 3'0" (0.91 m) width. 6-way adjustable operator's seat. Control levers for swing, boom telescope, winch and boom hoist. Outrigger controls, sight level bubble. Optional foot control for boom hoist and swing brake.

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

### Swing

Bi-directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 3.0 r.p.m.

**Swing brake** — Standard, manually applied, spring released, disc brake mounted on the speed reducer.

*Optional*— Foot swing brake. Foot operated, spring released disc brake mounted on speed reducer.

**Swing lock** — Standard two position travel lock operated from the operator's cab (over front and rear).

**Counterweight** — Bolted to upperstructure frame.

### Hydraulic system

**Main pump** — Three-section gear type pump powered by carrier engine through a mechanical pump disconnect. Pump operates at 2,800 p.s.i. (193.05 Bars) and 115 gpm (435.3 L/min) at 2,800 rpm.

**Steering pump** — Single gear-type with integral flow control valve set at 6 gpm (22.7 L/min) and a pressure relief set at 2,000 p.s.i. (137.9 Bars). Driven by V-belt from the carrier engine. (Mechanical drive with Cummins engine)

**Reservoir** — 110 gallon (416 L) capacity. Diffusers for deaeration.

**Filtration** — One two-micron filter located inside of the hydraulic reservoir. Accessible for easy replacement

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

### Load hoist system

**Standard:** 1M main winch with single speed motor and automatic brake; power up/down mode of operation. Bi-directional gear-type hydraulic motor, driven through a double planetary reduction unit for positive operator control under all load conditions.

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

*Optional* — Model 1M auxiliary winch with one-speed motor and automatic brake, power up/power down mode of operation. Available on rear winch only.

**Line pulls and speeds** — Maximum permissible line pull 9,600 lbs. (4 355 kg) and maximum permissible line speed of 416 f.p.m. (126.80 m/min) on standard 12" (0.30 m) root diameter smooth drum. Maximum permissible line pull 9,015 lbs. (4 089 kg) and maximum permissible line speed 443 f.p.m. (135.03 m/min) on optional 13-1/4" (0.34 m) diameter grooved drum.

### Optional upperstructure equipment

Electronic boom angle and boom length indicator, boom hoist foot control, propane heater, foot actuated swing brake, two-speed main winch, grooved drum, drum rotation indicators, 30-ton (27.22 metric ton) hook block, 8-1/2 ton (7.71 metric ton) hook, ball and swivel, load moment device, boom mounted working light, upper frame-mounted working light.

**Travel speeds and gradeability**

Engine	Maximum Speed 1)		Maximum Gradeability 2)		Gradeability at 1.0 mph (1.61 km/h)	
	mph	Km/h	Manual	Automatic (at stall)	Manual	Automatic (at stall)
<b>GM 8.2T</b>	52 mph	(83.67 km/h)	53%	59% (stall)	50%	46%
<b>Cat 3208T*</b>	52 mph	(83.67 km/h)	61%	66% (stall)	61%	52%

Note: 1) Maximum speed based on full engine rpm. 2) Percent of gradeability based on base machine tires and G.V.W.

Engine	GM 8.2T	Cummins 3208T*
Cylinders - cycle	8 - 4	8 - 4
Bore	4.25" (108.0 mm)	4.5" (114.3 mm)
Stroke	4.41" (112.0 mm)	5.0" (127 mm)
Displacement	500 cu. in. (8,193 cm <sup>3</sup> )	636 cu. in. (10,422 cm <sup>3</sup> )
Maximum gross hp	205 @ 2800 rpm	200 @ 2800 rpm
Peak torque	442 ft. lbs. (599 J)	490 ft. lbs. (664 J)
Electric system	12 volt negative ground	12 volt negative ground
Fuel capacity	60 gallons (227 L)	60 gallons (227 L)
Alternator	80 amps	65 amps
Crankcase capacity	10 quarts (9.46 L) ⊕	12 quarts (11.4 L)
Air compressor	12 c.f.m. (0.34 m <sup>3</sup> /min)	12 c.f.m. (0.34 m <sup>3</sup> /min)
Coolant cap.	10.8 gal. (40.9 L)	14.0 gal. (53.0 L)
Maximum altitude	13,000 ft. (3,962 m)	12,500 ft. (3,810 m)
Maximum net. h.p. ⊕	184 @ 2,800 rpm	183 @ 2,800 rpm

⊕20 Qts. (18.92 L) export

⊗Calculated

\*Optional Equipment

**Axle loads ⊕**

The machine includes 28'9" -70'3" (8.76-21.41 m) 3-section boom, 385' (117.35 m) or 9.16" (14 mm) wire rope, single-speed main winch, 6x4 carrier with GM 8.2T diesel engine, full fuel & hydraulic oil, pontoons stored, 4,850 lb. (2,200 kg) counterweight and Roadranger transmission	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.
	46,432	21,058	13,806	6,261	32,626	14,797	8,338	3,782	38,094	17,276
24' (7.32 m) lattice fly, stowed	480	218	382	173	98	44	-382	-173	862	391
Hookblock at bumper	388	176	575	261	-187	-85	575	261	-187	-85
Headache ball at bumper	325	147	481	218	-156	-71	481	218	-156	-71
Auxiliary lifting sheave	75	34	115	52	-40	-18	-115	-52	190	86
Front bumper outrigger	320	145	430	195	-110	-50	430	195	-110	-50
16.5 X 22.5 opt. front tires and rims	48	22	48	22	0	0	48	22	0	0
14/80 R20 opt. rear tires and rims	138	63	138	63	0	0	138	63	0	0
11 X 20 opt. rear tire and rims	261	118	0	0	261	118	0	0	261	118
11R20 opt. rear tires and rims	457	207	0	0	457	207	0	0	457	207
10 X 20 S.A.G. opt. rear tires and rims	85	39	0	0	85	39	0	0	85	39
Catapillar 3208 engine	175	79	156	71	19	9	156	71	19	9
Cummins VT-225 engine	675	306	600	272	75	34	600	272	75	34
6 X 6 drive	786	356	602	273	184	83	602	273	184	83
Automatic transmission	-155	-70	-115	-52	-40	-18	-115	-52	-40	-18
Auxiliary winch w/300' (91.44 m) wire rope	168	76	-79	-36	-247	-112	79	36	89	40
Remove 4,850 lb (2,200 kg) ctwt. ⊕	-4,850	-2,200	2,268	1,028	-7,118	-3,228	-2,268	-1,028	-2,582	-1,171

⊕ All weights are ± 3%.

⊗ Adjust gross vehicle weight & axle according to component's weight.

⊕ Includes auxiliary winch if equipped.

⊕ When selecting a tire & drive combination, the front axle load with upper facing front should not exceed the limits in the table below:

Drive	Front Tire	Maximum Front Axle Load
6 X 4	15 X 22.5 H	18,200 lb. (8,255 kg)
	16.5 X 22.5 H	19,700 lb. (8,935 kg)
	14/80R20J	18,665 lb. (8,465 kg)
6 X 6	15 X 22.5 H	18,000 lb. (8,160 kg)
	16.5 X 22.5 H	18,000 lb. (8,160 kg)

Ⓜ Link-Belt is a registered trademark.

We are constantly improving our products and therefore reserve the right to change designs and specifications.