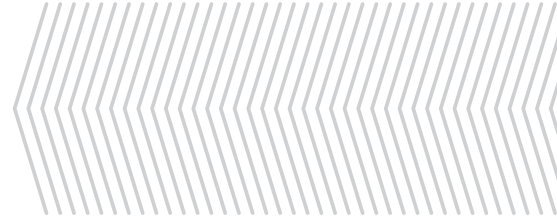


LR65

CYLINDER CROWD DRILLING RIG



CZM

FOUNDATION EQUIPMENT



czm-us.com

LR65

FEATURES

The **LR65** is part of CZM's Long Reach series and is mounted on a Cat® 323 Next Gen with variable undercarriage for increased stability. It has a special designed boom with 2 lift cylinders which allows for a high torque and crowd force to be applied to the tool through an interlocking Kelly bar, making it very efficient on hard soil and rock drilling. The long reach configuration makes it ideal to applications such as sound bearing walls, transmission lines and utilities, drilling on a steep slopes, and difficult to reach holes.

CZM'S OPERATOR ASSIST TECHNOLOGY:

- › Auto Gear shifting for Rotary
- › Auto Gear shifting for Main winch
- › Drill Lock
- › Auto Crowd
- › Auto Level
- › Return to Center

TELEMATICS: The rig includes a CZM Telematics System for remote monitoring, diagnostics, and software updates, enabling CZM Support to assist with troubleshooting and performance optimization.

BASE

The new Cat® 323 Next Gen is a purpose-built machine powered by a fuel-efficient U.S. EPA Tier 4 Final C7.1 ACERT engine.

Equipped with CAT Vision Link that wirelessly allows monitoring of the machine for maintenance and operations data, providing information such as location, hours, fuel usage, idle time, event codes and maintenance schedule.

ROTARY

Robust design, with 2 slewing bearings on top and bottom, and robust pinion and main gear.

Anti-cavitation and anti-shock system for longer hydraulic motor life.

Cooling system for hydraulic motors and gearboxes.

Power-shift for High spin-off speed (140 rpm) for quick discharge of soil.

3 operation speeds and 3 spinoff speeds. For high torque and high speeds.

Automatic gear shifting, for seamless operation, high production.

Exchangeable keys, bolted and reversible. No need to rebuild keys by welding inside the rotary.

Hydraulic measurement of torque displayed in the cab for the operator.

UNDERCARRIAGE

Caterpillar variable undercarriage with a reinforced H-style frame provides increased stability and traction force. Its variable width design expands for maximum stability during drilling and retracts for easy transport.

MAST

Reinforced mast, with high strength steel.

Multiple mast extensions available .

Quick/easy to convert.

MAIN WINCH

Special groove for better cable winding and longer cable life.

Press roller to maintain cable alignment standard.

2 gears allows for both high speed and high pulling force.

Automatic gear shifting, for seamless operation, high production.

Automatic down the hole winch stop. When Kelly bar reaches the bottom of the hole, winch automatically stops.

CAB

AM/FM Radio, Air conditioning/Heating

Top protection

LCD monitor for Engine and Hydraulics computer, with diagnostic system

CONTROL SYSTEM

Touch Screen Display

Measurements:

- Torque and rotary speeds
- Drilling depth
- Mast inclination X/Y axis
- Main Winch pulling force
- Crowd force

Automatic functions:

- Auto-level of mast
- Rotary automatic gear shifting
- Main Winch automatic gear shifting

Maintenance and data logging



SAFETY

Stability according to EN16228

Base, Mast and Boom Inclinometers

Working radius warning

Limit switches for Boom, Mast Tilt, Main Winch and Service Winch

Operator warnings for non recommended operations.

ACCESSORIES

Lighting package

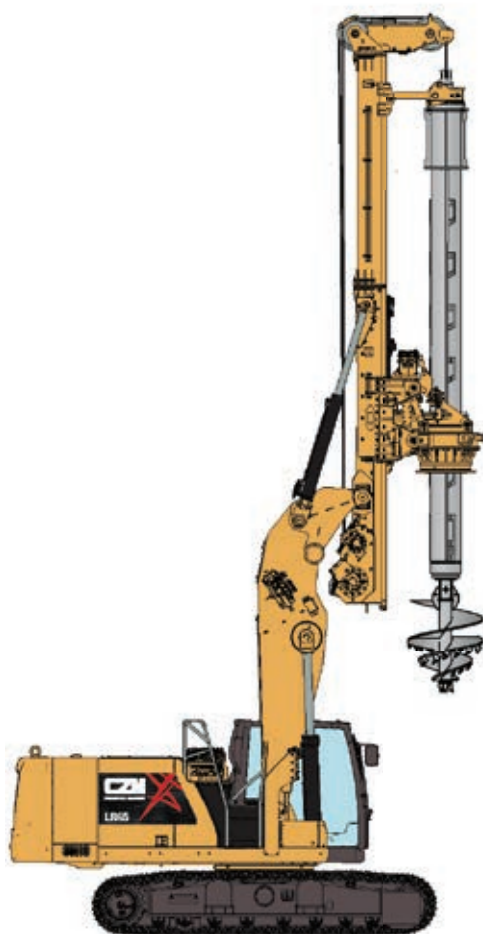
Refueling pump

O-ring kits

Toolbox

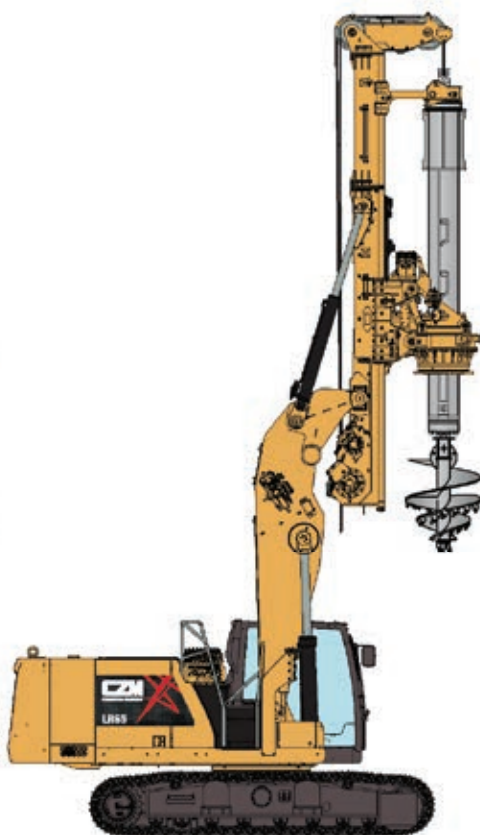
LR65

APPLICATIONS



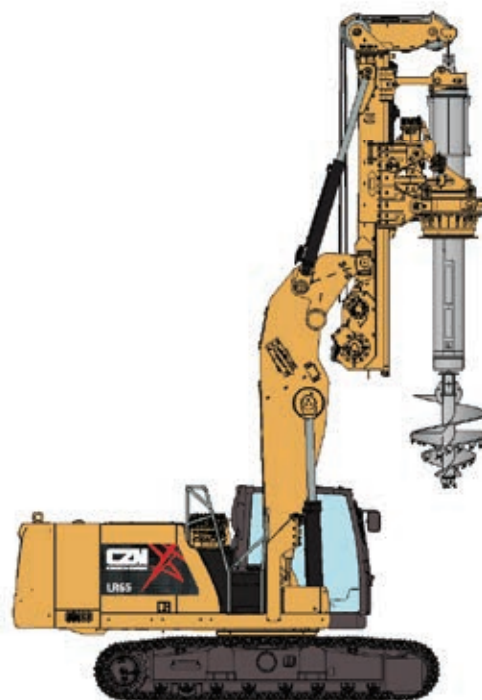
STANDARD MAST

Standard Drilling Depth	84 ft
Diameter (Max. above mast)	5 ft
Diameter (Max. below mast)	9 ft
Max. Torque	77,500 ft.lbs
Operating weight*	86,900 lb



MID MAST

Standard Drilling Depth	56 ft
Diameter (Max. above mast)	5 ft
Diameter (Max. below mast)	9 ft
Max. Torque	77,500 ft.lbs
Operating weight*	83,600 lb



SHORT MAST

Standard Drilling Depth	42 ft
Diameter (Max. above mast)	5 ft
Diameter (Max. below mast)	9 ft
Max. Torque	77,500 ft.lbs
Operating weight*	82,500 lb

* Weight includes standard kelly bar, without tool.

LR65

TECHNICAL SPECIFICATIONS

ROTARY HEAD

Maximum torque (Nominal)	77,500 ft.lbs
Working speed of rotation	19-30.5 rpm
Spin-off rotation	90-140 rpm

CROWD SYSTEM

Cylinder stroke	6 ft 3 in
Cylinder push force	27,000 lbf
Cylinder push speed	75 ft/min
Cylinder pull force	39,600 lbf
Cylinder pull speed	54 ft/min

MAIN WINCH

Max. pull-force - 1st Layer (effective)	27,100 lbf
Line speed - 1st Layer	305 ft/min
Cable diameter	3/4 in
Drum diameter - 1st Layer	15 in

AUXILARY WINCH

Max. pull-force - 1st Layer (effective)	10,000 lbf
Line speed - 1st Layer	120 ft/min
Cable diameter	5/8 in
Drum diameter - 1st Layer	12.6 in

MAST INCLINATION

Backward	15°
Forward	10°
Sideways	12° / 12°

DIESEL ENGINE Cat® 323 - (Cat® C71 ACERT™)

Net Power (ISO 14396)	176 hp
Displacement	428 in³
Fuel Tank	86 gal

HYDRAULIC SYSTEM - (Cat® 323)

Hydraulic pressure	5,076 psi
Flow rate (main circuit)	2x56.5 gal/min
Flow rate (auxiliary circuit)	26.5 gal/min
Hydraulic oil tank capacity	30.4 gal

UNDERCARRIAGE

Track length	15 ft 3 in
Length to Center of rollers	12 ft 8 in
Closed position width (retracted)	8 ft 4 in
Working position width (extended)	12 ft
Shoes width	23.6 in
Max. drawbar pull	86,000 lbf
Max. travel speed	1.15 mph

STANDARD MAST

GENERAL DIMENSIONS



KELLY BAR OPTIONS	PART #	# ELEMENTS	DEPTH - DPT-1 ¹	DPT-2 ²	TRANSPORT - KCL ³	HGT-1 ⁴	HGT-2 ⁵	KOP ⁶	WEIGHT ⁷
5/80 Interlock	20712.5080.000	5	74 ft 1 in	84 ft 9 in	23 ft 3 in	10 ft 8 in	0 ft	86 ft 7 in	8,400 lb
5/60 Interlock	25506.5060.000	5	54 ft 11 in	68 ft 7 in	18 ft 9 in	14 ft 7 in	11 in	67 ft 5 in	7,500 lb
4/53 Interlock	25506.4053.000	4	44 ft	57 ft 8 in	20 ft 3 in	14 ft 4 in	8 in	57 ft 3	7,300 lb

¹ DPT-1: Total depth with 5 ft tool boomed all the way back.

² DPT-2: Total depth with 5 ft tool boomed all the way forward.

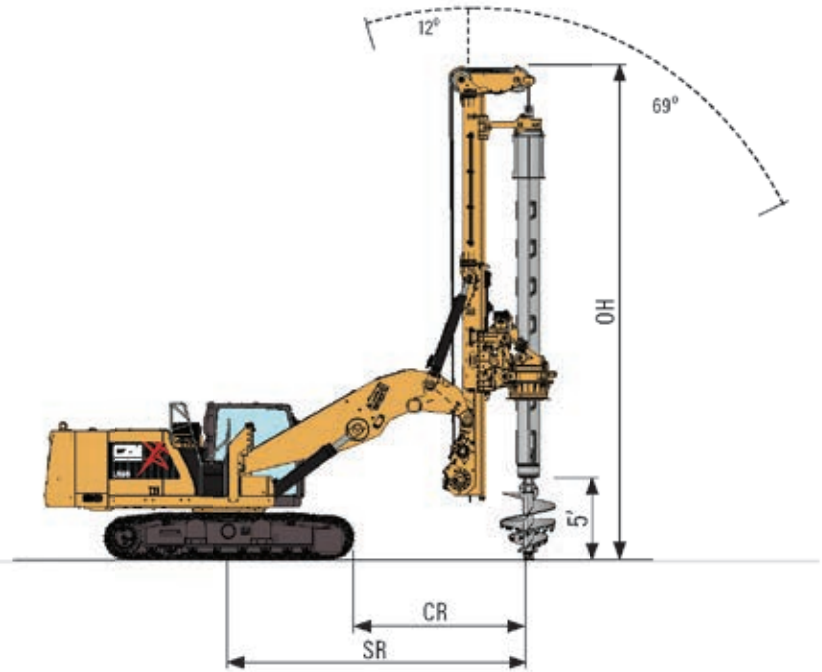
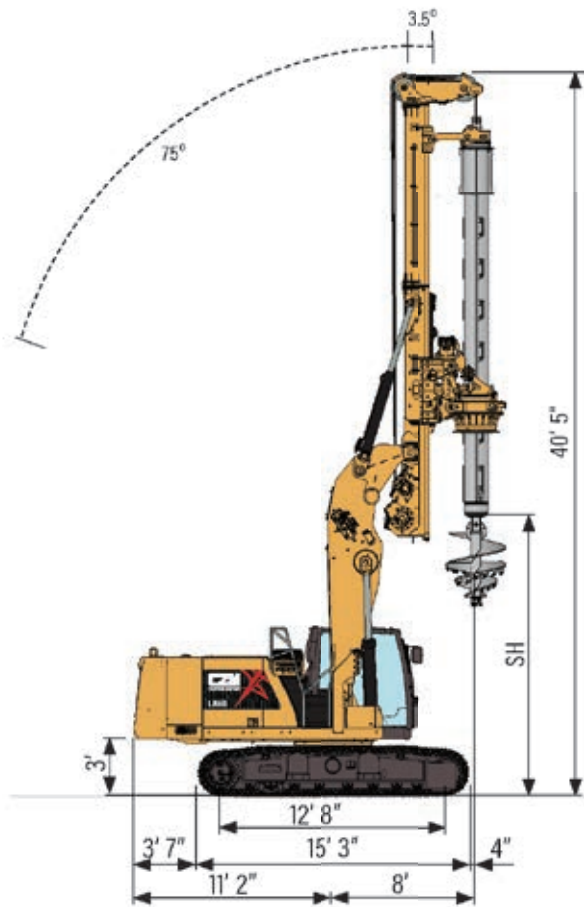
³ KCL: Length measured from bottom of stub to top of swivel.

⁴ HGT-1: Length measured from ground to bottom of auger, boomed all the way back.

⁵ HGT-2: Length measured from ground to bottom of auger, boomed all the way forward.

⁶ KOP: Length measured from top of flange to bottom of stub (without a tool).

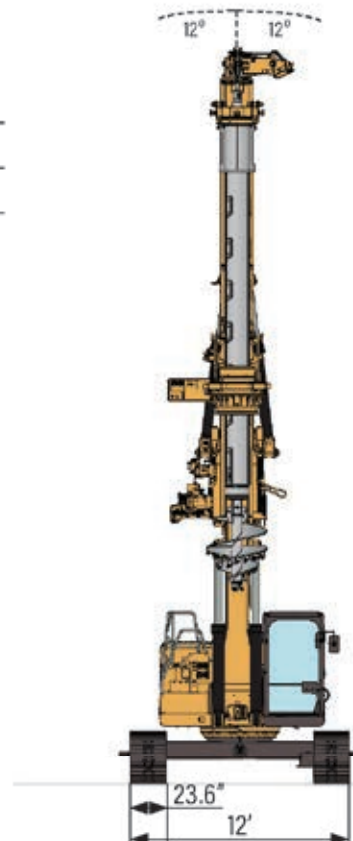
⁷ Weight includes A-frame and swivel.



KELLY BAR OPTIONS	PART #	SH	SR	CR	OH
5/80 Interlock	20712.5080.000	15 ft 8 in	18 ft	10 ft 4 in	29 ft 9 in
5/60 Interlock	25506.5060.000	19 ft 7 in	18 ft 4 in	10 ft 8 in	26 ft 9 in
4/53 Interlock	25506.4053.000	19 ft 4 in	18 ft 4 in	10 ft 8 in	26 ft 9 in

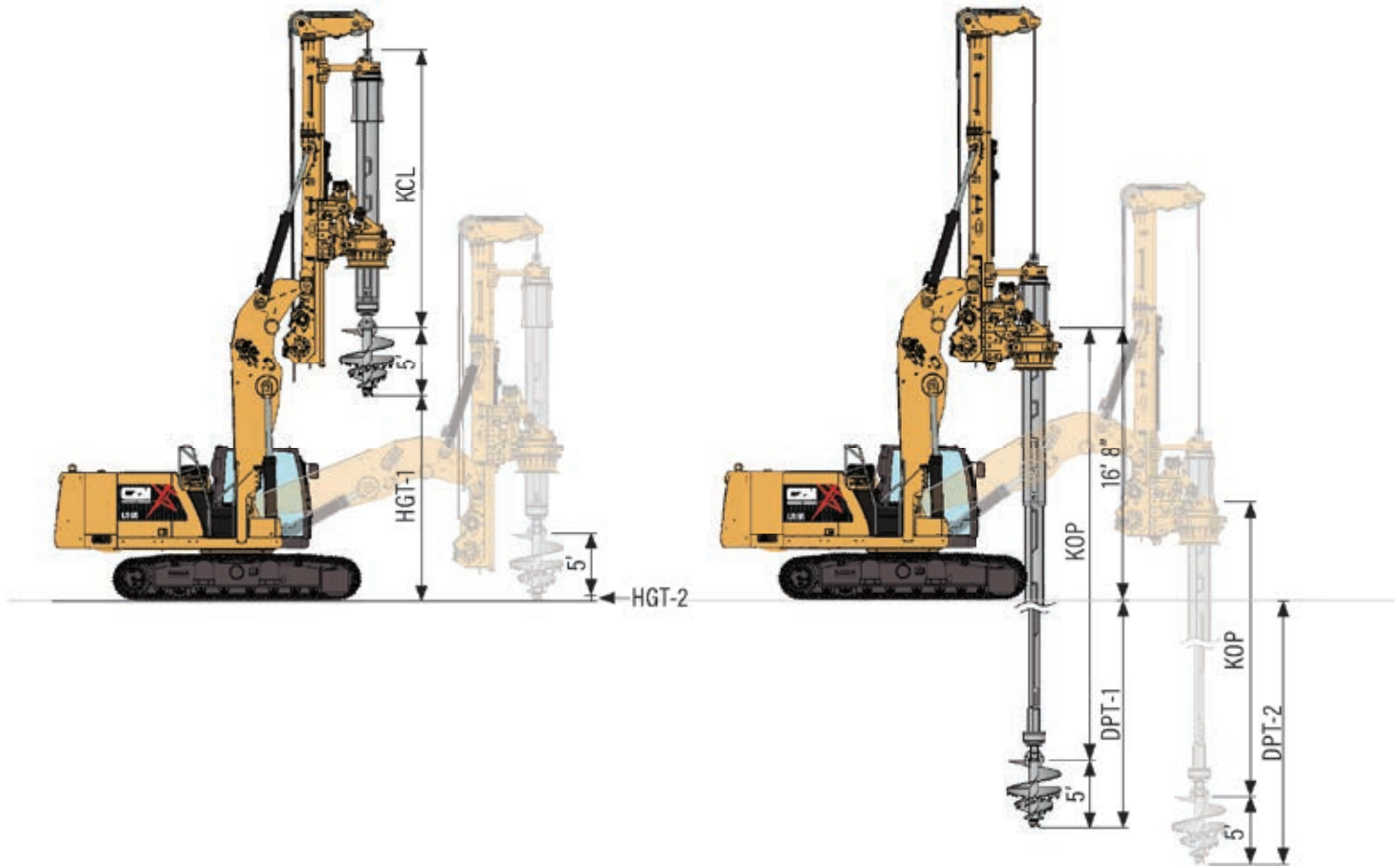
GENERAL SPECIFICATIONS

Maximum torque (Nominal)	77,500 ft.lbs
Crowd force	27,000 lbf
Main winch line pull	27,100 lbf
Cylinder stroke	6 ft 3 in
Operation weight	86,900lb



MID MAST

GENERAL DIMENSIONS



KELLY BAR OPTIONS	PART #	# ELEMENTS	DEPTH - DPT-1 ¹	DPT-2 ²	TRANSPORT - KCL ³	HGT-1 ⁴	HGT-2 ⁵	KOP ⁶	WEIGHT ⁷
5/52 Interlock	25862.5052.000	5	44 ft 3 in	56 ft 10 in	17 ft 1 in	12 ft 6 in	0 ft	56 ft 10 in	6,800 lb
5/60 Interlock	25506.5060.000	5	54 ft 11 in	65 ft 1 in	18 ft 9 in	10 ft 2 in	0 ft	67 ft 5 in	7,500 lb
4/53 Interlock	25506.4053.000	4	44 ft	53 ft 11 in	20 ft 3 in	10 ft	0 ft	57 ft 3 in	7,300 lb
4/45 Interlock	25506.4045.000	4	33 ft 2 in	45 ft 5 in	17 ft	12 ft 3 in	0 ft	45 ft 9 in	6,400 lb

¹ DPT-1: Total depth with 5 ft tool boomed all the way back.

² DPT-2: Total depth with 5 ft tool boomed all the way forward.

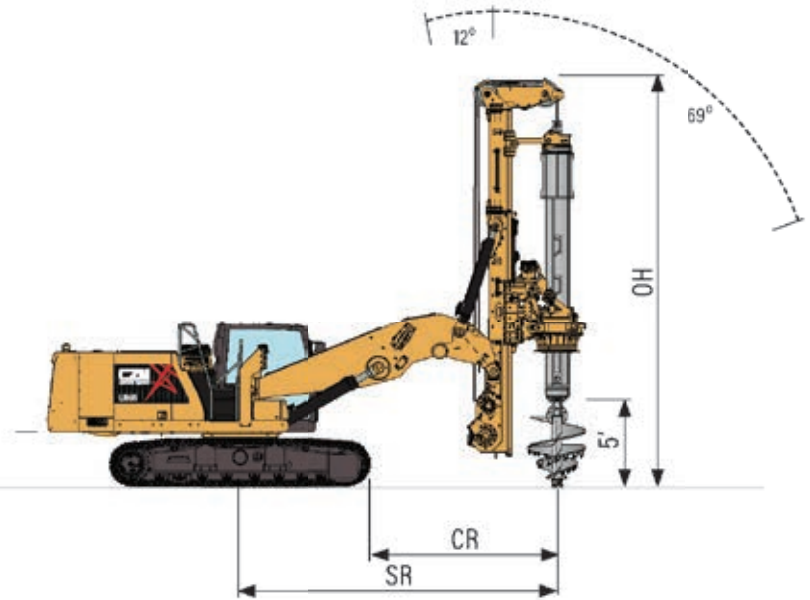
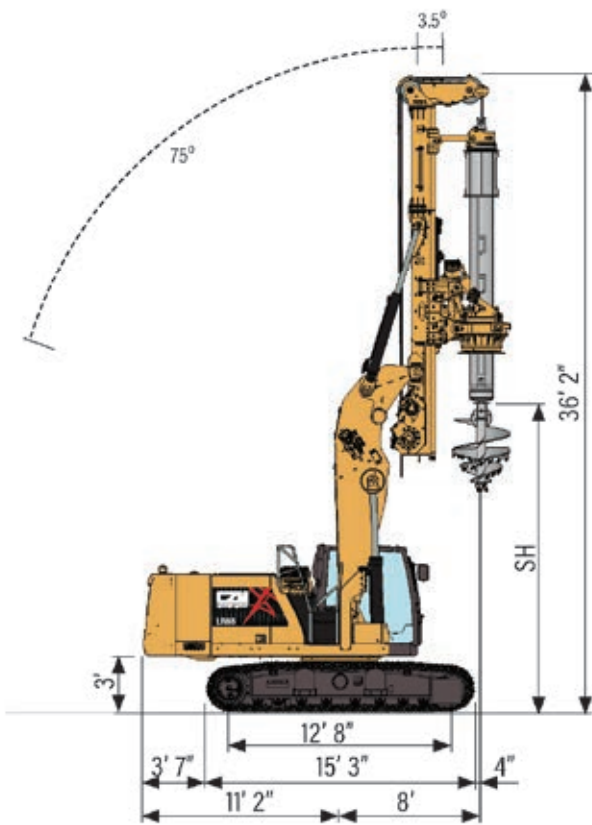
³ KCL: Length measured from bottom of stub to top of swivel.

⁴ HGT-1: Length measured from ground to bottom of auger, boomed all the way back.

⁵ HGT-2: Length measured from ground to bottom of auger, boomed all the way forward.

⁶ KOP: Length measured from top of flange to bottom of stub (without a tool).

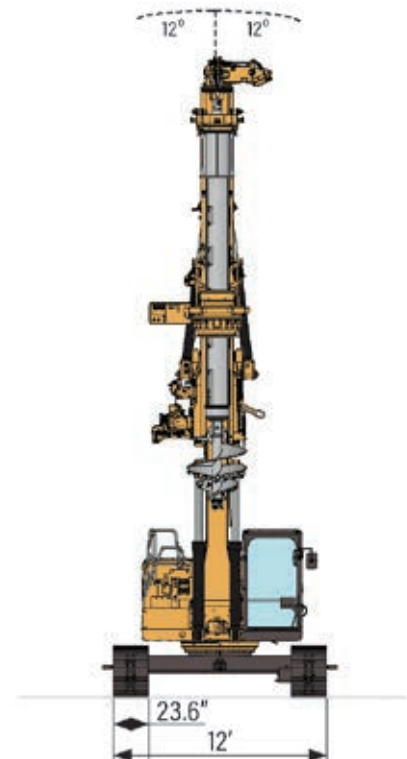
⁷ Weight includes A-frame and swivel.



KELLY BAR OPTIONS	PART #	SH	SR	CR	OH
5/52 Interlock	25862.5052.000	17 ft 6 in	18 ft 4 in	10 ft 7 in	23 ft 7 in
5/60 Interlock	25506.5060.000	15 ft	17 ft 1 in	10 ft 2 in	26 ft 2 in
4/53 Interlock	25506.4053.000	17 ft 3 in	18 ft 3 in	10 ft 7 in	23 ft 10 in
5/60 Interlock	25506.4045.000	15 ft 2 in	17 ft 11 in	10 ft 3 in	25 ft 11 in

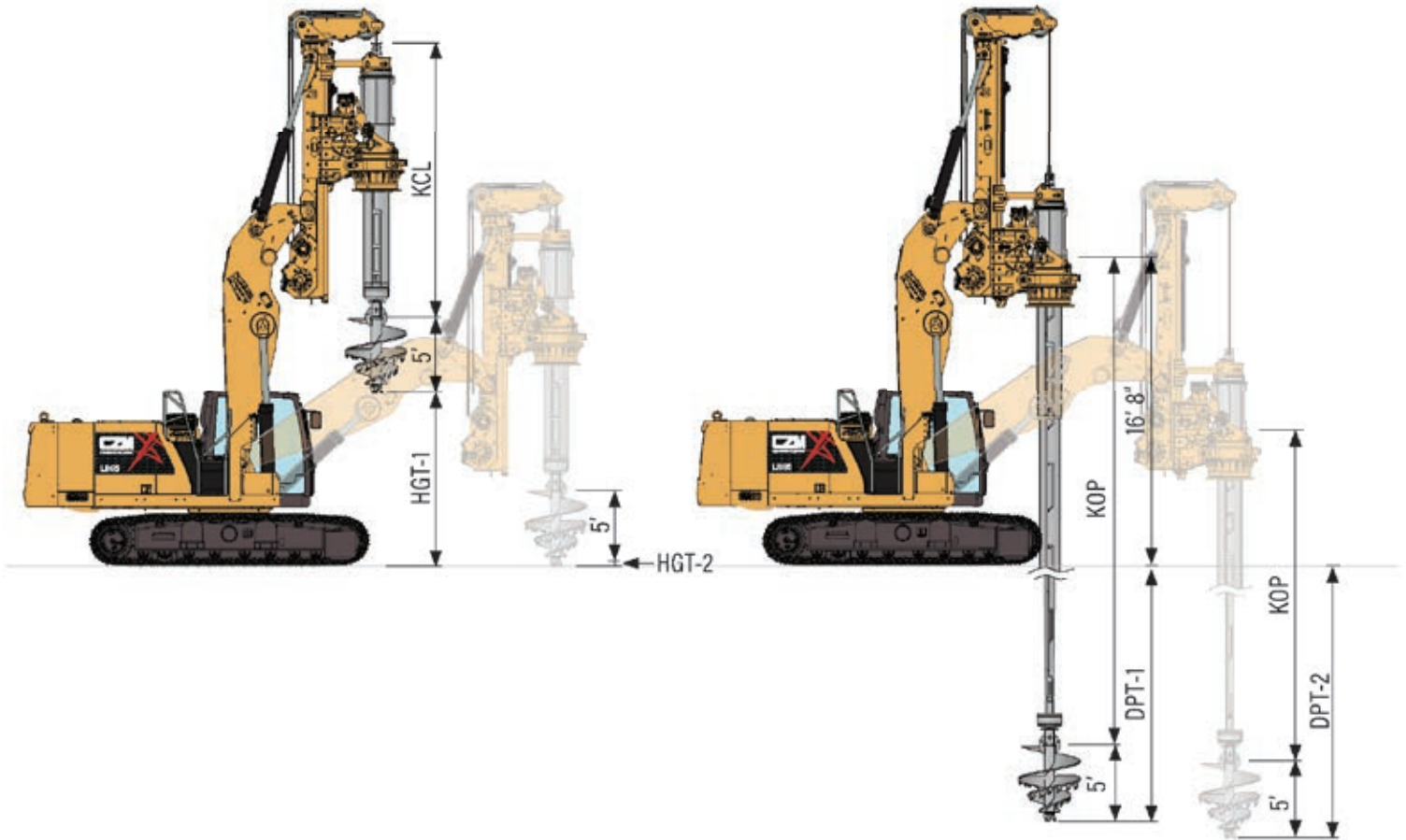
GENERAL SPECIFICATIONS

Maximum torque (Nominal)	77,500 ft.lbs
Crowd force	27,000 lbf
Main winch line pull	27,100 lbf
Cylinder stroke	6 ft 3 in
Operation weight	83,600 lb



SHORT MAST

GENERAL DIMENSIONS



KELLY BAR OPTIONS	PART #	# ELEMENTS	DEPTH - DPT-1 ¹	DPT-2 ²	TRANSPORT - KCL ³	HGT-1 ⁴	HGT-2 ⁵	KOP ⁶	WEIGHT ⁷
5/40 Interlock	25506.5040.050	5	33 ft 1 in	42 ft 6 in	14 ft 10 in	9 ft 5 in	0 ft	45 ft 8 in	5,600 lb
5/52 Interlock	25862.5052.000	5	44 ft 3 in	51 ft 6 in	17 ft 1 in	7 ft 3 in	0 ft	56 ft 10 in	6,800 lb
4/45 Interlock	25506.4045.000	4	33 ft 2 in	40 ft 2 in	17 ft	7 ft	0 ft	45 ft 9 in	6,400 lb

¹ DPT-1: Total depth with 5 ft tool boomed all the way back.

² DPT-2: Total depth with 5 ft tool boomed all the way forward.

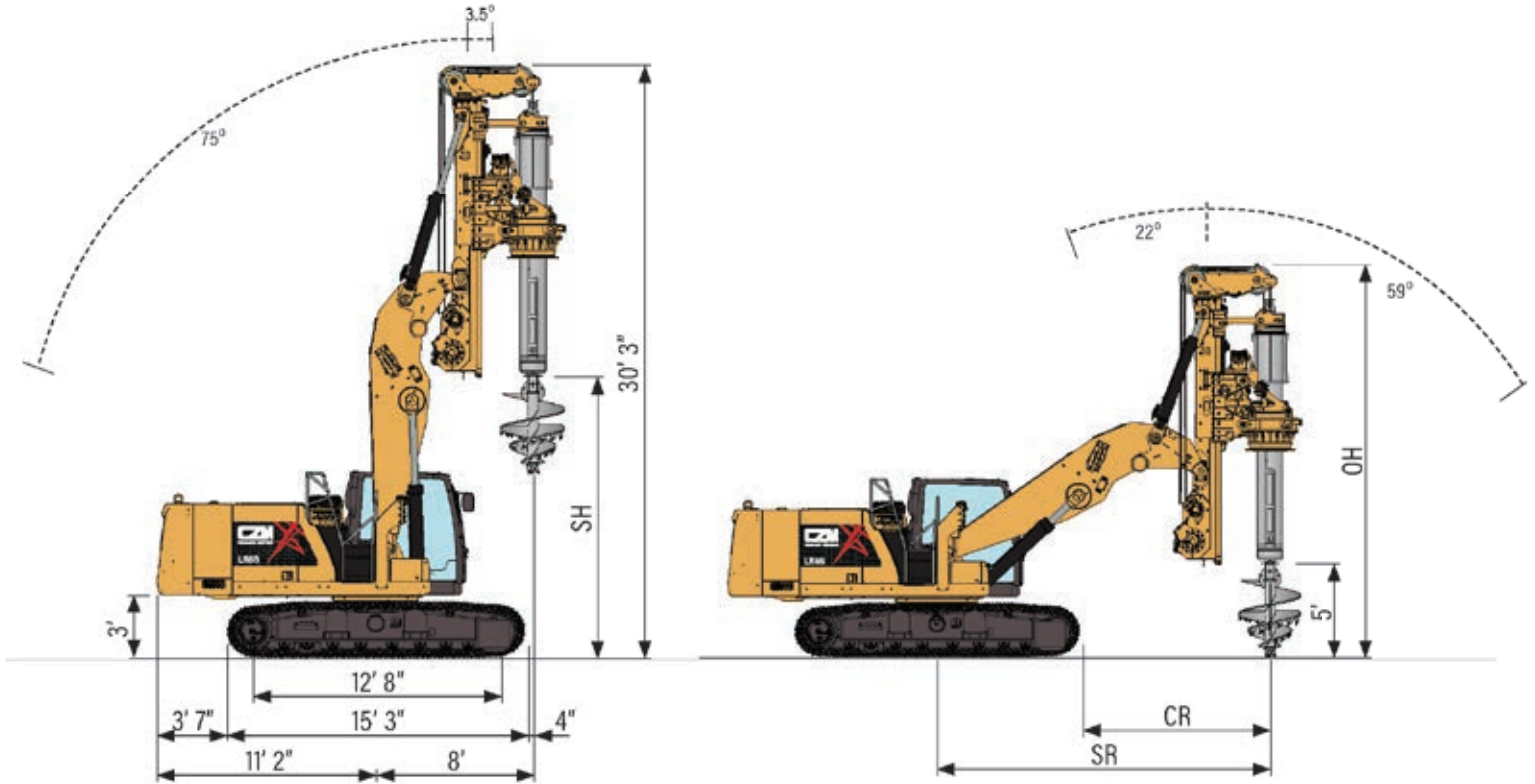
³ KCL: Length measured from bottom of stub to top of swivel.

⁴ HGT-1: Length measured from ground to bottom of auger, boomed all the way back.

⁵ HGT-2: Length measured from ground to bottom of auger, boomed all the way forward.

⁶ KOP: Length measured from top of flange to bottom of stub (without a tool).

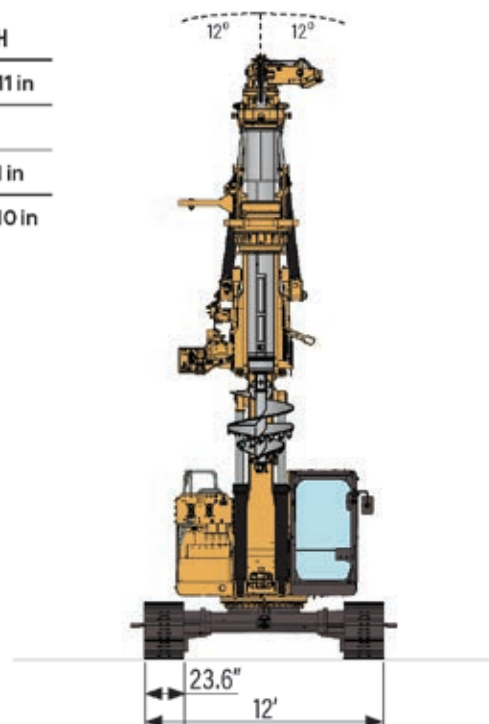
⁷ Weight includes A-frame and swivel.



KELLY BAR OPTIONS	PART #	SH	SR	CR	OH
5/40 Interlock	25506.5040.050	14 ft 5 in	17 ft 8 in	10 ft	20 ft 11 in
5/52 Interlock	25862.5052.000	12 ft 3 in	16 ft 10 in	9 ft 1 in	23 ft
6/60 Friction	25712.6060.000	12 ft 11 in	16 ft 9 in	9 ft 1 in	23 ft 1 in
4/45 Interlock	25506.4045.000	12 ft	16 ft 8 1/2 in	9 ft	23 ft 10 in

GENERAL SPECIFICATIONS

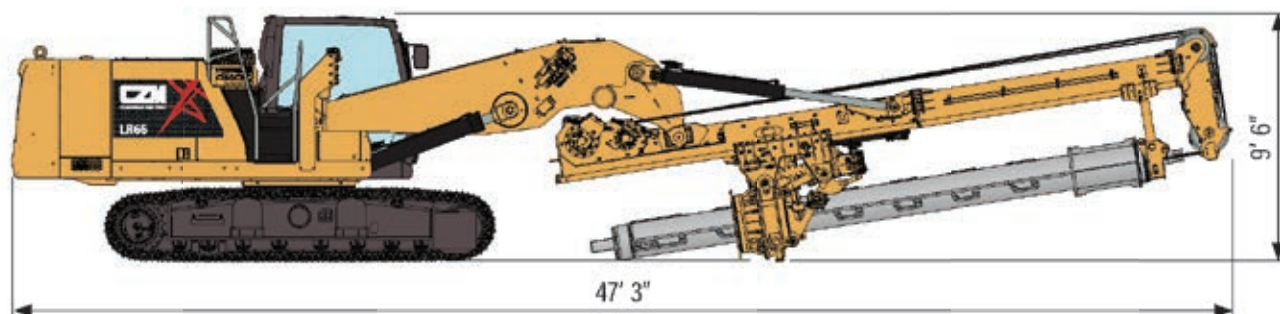
Maximum torque (Nominal)	77,500 ft.lbs
Crowd force	27,000 lbf
Main winch line pull	27,100 lbf
Cylinder stroke	6 ft 3 in
Operation weight	82,500 lb



TRANSPORT

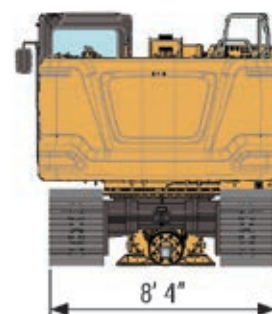
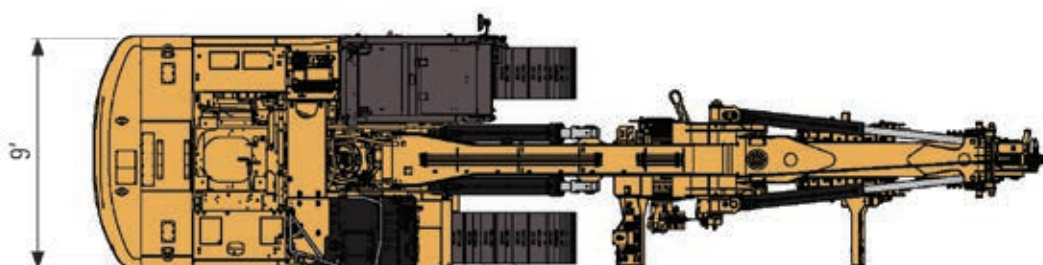
DIMENSIONS

STANDARD MAST



Height	9 ft 6 in
Length	47 ft 3 in

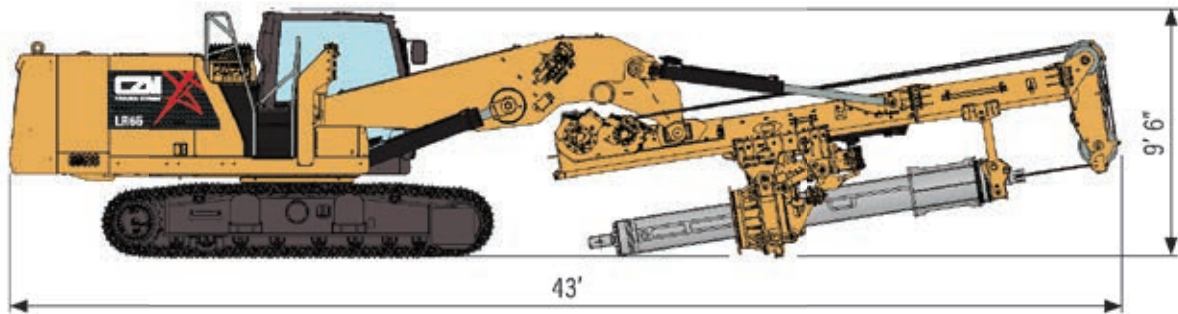
Width	9 ft
Weight	86,900 lb



COMPONENTS

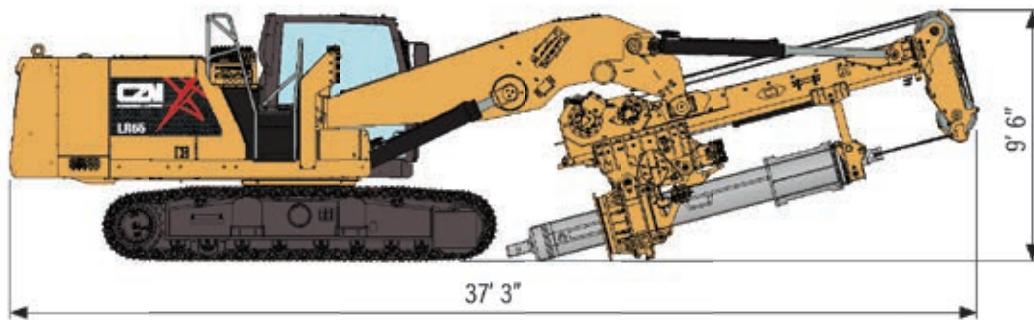
Rotary	5,420 lb
Main Cat® Counterweight	9,260 lb
Standard Mast Standard Kelly Bar 5/80	8,400 lb
Mid Mast Standard Kelly Bar 5/52	6,800 lb
Short Mast Standard Kelly Bar 5/40	5,600 lb

MID MAST



Height	9 ft 6 in	Width	9 ft
Length	43 ft	Weight	83,600 lb

SHORT MAST



Height	9 ft 6 in	Width	9 ft
Length	37 ft 3	Weight	82,500 lb



FOUNDATION EQUIPMENT

> HEADQUARTERS

962 Interstate Centre Blvd.
Ellabell, Georgia 31308
(912) 200-7654

czm-us.com



AFTER SALES

> CALIFORNIA

1720 N. Ventura Avenue
Ventura, CA 93001
(805) 701-9885

> GEORGIA

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Pembroke, GA 31321
(912) 200-7656

> KENTUCKY

170 Budco Lane
Elizabethtown, KY 42701
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> TEXAS

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Haslet, TX 76052
(817) 232-8053



MADE IN
THE
USA



ABOUT CZM

CZM is headquartered in Savannah, Georgia, USA. For 50 years, we have specialized in manufacturing foundation equipment. We design and customize models for many different drilling applications including Drilled Shafts, CFA, Displacement piles, Soilmixing, Micropiles, Anchors, Driven piles and Soil improvement. We are a Caterpillar OEM (Original Equipment Manufacturer).

myCZM > portal.myczm-us.com

The myCZM Web Portal is the essential digital point of reference for all customers and dealers, providing instant access to everything you need.

- > **Machine Documentation:** Consult manuals, warranties, stability charts, and technical schematics (electrical/hydraulic).
- > **Spare Parts:** Navigate and identify needed parts, and submit direct quotation requests.
- > **Support:** Directly submit information and general inquiries.

CZM CAPITAL

CZM provides flexible, affordable financing to get our machines working for you. Get more than just a machine for your money. Ask us about RPO and lease options.

Contact us today at (877) 773-0333.

Specifications are subject to change without notice.