

CZM

FOUNDATION EQUIPMENT



LR125

LONG REACH

Cat® 340 TIER IV

ABOUT THE LONG REACH SERIES

APPLICATIONS:

- **Long Reach**, the longest reach drill rig of its class in the market.
- Conversion to **Long Mast** and **Short Mast** options available.

BASE:

- The new **Cat 340** is a purpose-built machine powered by a fuel-efficient U.S. EPA **Tier 4 Final** C9.3 ACERT engine.
- Equipped with **CAT Vision Link** that allows management to monitor machine operations and maintenance data online and wireless, providing information such as location, hours, fuel usage, idle time, event codes and maintenance schedule.

UNDERCARRIAGE:

- Caterpillar **variable undercarriage** VH4600/4450/750. Reinforced frame telescopic variable undercarriage.

MAST:

- Reinforced mast, with high resistance steel **Weldox 700**.
- Dual tilt up cylinders add mast rigidity

ROTARY:

- **Robust design**, with 2 slewing bearings on top and bottom, 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 (120rpm)** 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. No need to rebuild keys by welding inside the rotary.
- Hydraulic measurement of torque displayed in the cabin for the operator.

MAIN WINCH:

- **Special groove** for better cable winding and longer cable life.
- Press-roller included
- **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.
- Freewheeling winch during crowd operation.
- Hydraulic and mechanical brake.
- Hydraulic measurement of pulling force displayed in the cabin for operator.

KELLY BAR:

- Large inner passage on rotary allows for **large diameter pipes** (16in) and **thicker keys**.
- Thick Keys made of Wear resistant materials – **Hardox 450**.



CAB:

- AM/FM Radio, Air conditioning/Heating
- ROPS cab
- 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
 - Drill Lock
 - Auto Crowd
 - Return to Center
- Maintenance and data logging

ACCESSORIES:

- Lighting package
- Refueling pump
- Cold weather start up package
- Fine filtration system
- Tool & O'ring kits

TECHNICAL SPECIFICATIONS

KELLY BAR SHORT MAST APPLICATION

Standard Drilling Depth (5 elements; interlock kelly bar)	55 ft	16,764 mm
Maximum Drilling Depth (Interlocking bars)*	80 ft	24,384 mm
Maximum Drilling Depth (Friction bars)*	100 ft	30,480 mm
Drilling Diameter	12 ft	3,650 mm

*For longer bars, most extension is required.

ROTARY HEAD - RT 406-14

Max. torque (nominal)	101,400 ft.lbs	14,060 kg.m
Working speed of rotation	11-25 rpm	11-25 rpm
Spin-off rotation	55-120 rpm	55-120 rpm

ROTARY HEAD - RT 406-12

Max. torque (nominal)	88,000 ft.lbs	12,200 kg.m
Working speed of rotation	13-30 rpm	13-30 rpm
Spin-off rotation	55-120 rpm	55-120 rpm

CROWD SYSTEM

Cylinder stroke - short mast	9 ft	2,750 mm
Cylinder push force	44,500 lbf	20,230 kgf
Cylinder push speed	128 ft/min	33 m/min
Cylinder pull force	53,220 lbf	24,190 kgf
Cylinder pull speed	118 ft/min	36 m/min

MAIN WINCH

Max. pull-force - 1st Layer (effective)	41,270 lbf	18,760 kgf
Cable diameter	.94 in	24 mm
Drum diameter - 1st Layer	18.9 in	480 mm

AUXILIARY WINCH

Max. pull-force - 1st Layer (effective)	22,000 lbf	10,000 kgf
Line speed - 1st Layer	180 ft/min	55 m/min
Cable diameter	3/4 in	19 mm
Drum diameter - 1st Layer	16.5 in	420 mm

MAST INCLINATION

Backward	15°	15°
Forward	5°	5°
Sideways	8° / 8°	8° / 8°



DIESEL ENGINE Cat® 340 TIER IV (Cat® C9.3B)

Net Power – ISO 14396	346 hp	258.3 kW
Displacement	568 in ³	9.3 L
Fuel Tank	158.5 gal	600 L

HYDRAULIC SYSTEM (Cat® 340 TIER IV)

Hydraulic pressure	5,076 psi	350 bar
Flow rate (main circuit)	2x74 gal/min	2x280 L/min
Hydraulic oil tank capacity	42.5 gal	161 L

UNDERCARRIAGE

Track length	17 ft 11 in	5,450 mm
Length to Center of rollers	15 ft 1 in	4,600 mm
Transport position width (retracted)	9 ft 11 in	3,000 mm
Working position width (extended)	14 ft 7 in	4,450 mm
Shoes width	28.3 in	720 mm
Max. drawbar pull (both tracks)	116,800 lbf	53,000 kgf
Max. travel speed	1.30 mph	2.0 km/h

TRANSPORT

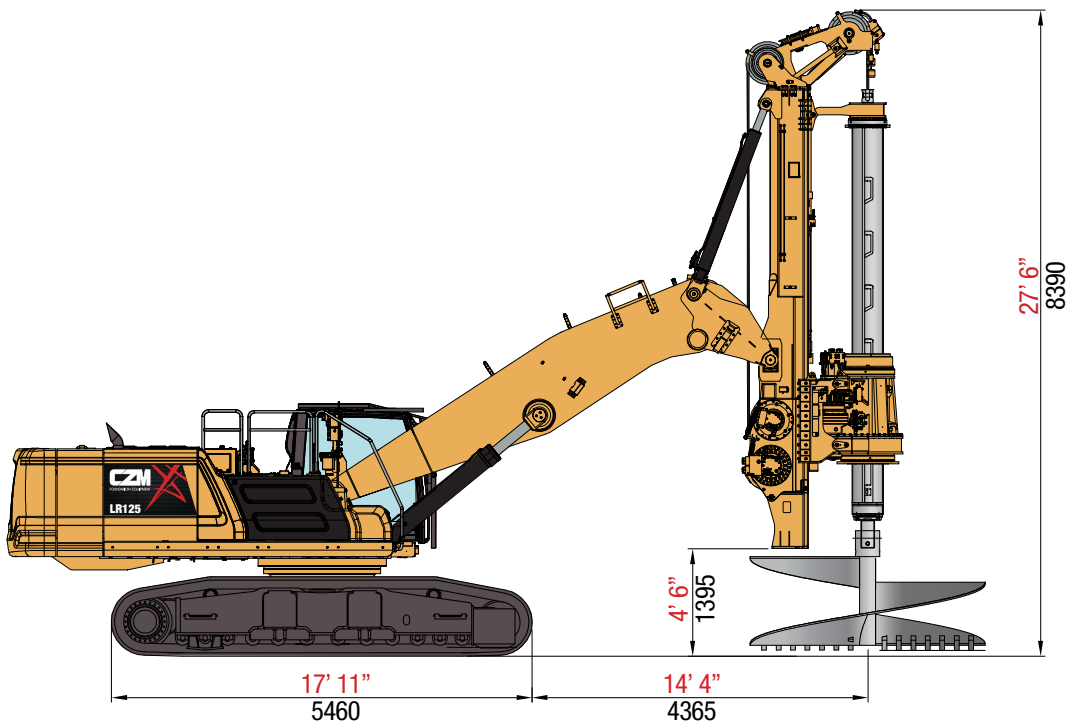
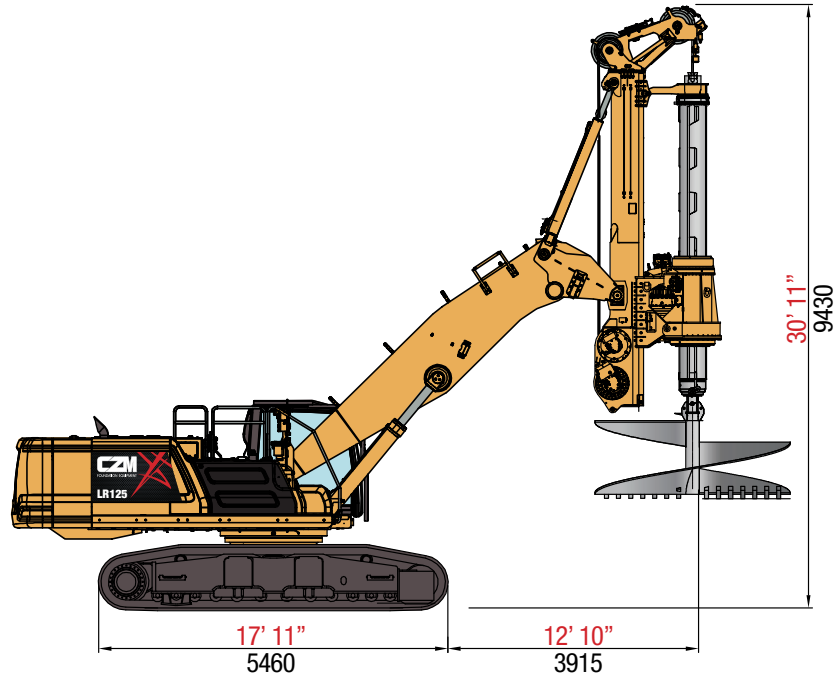
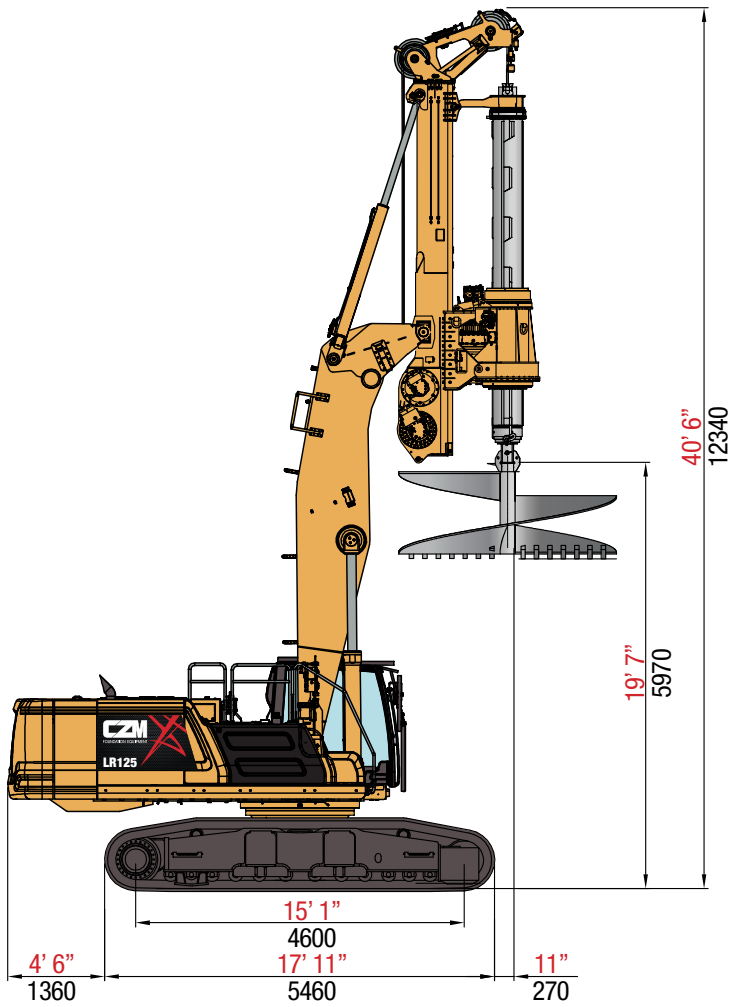
Transport height	10 ft 8 in	3,260 mm
Length	48 ft 3 in	14,720 mm
Transport width	9 ft 11 in	3,000 mm
Transport weight (standard kelly 5 / 55 ft)	115,000 lb	52,270 kg
Transport weight (without kelly & counterweight)	91,000 lb	41,276 kg

GENERAL DATA

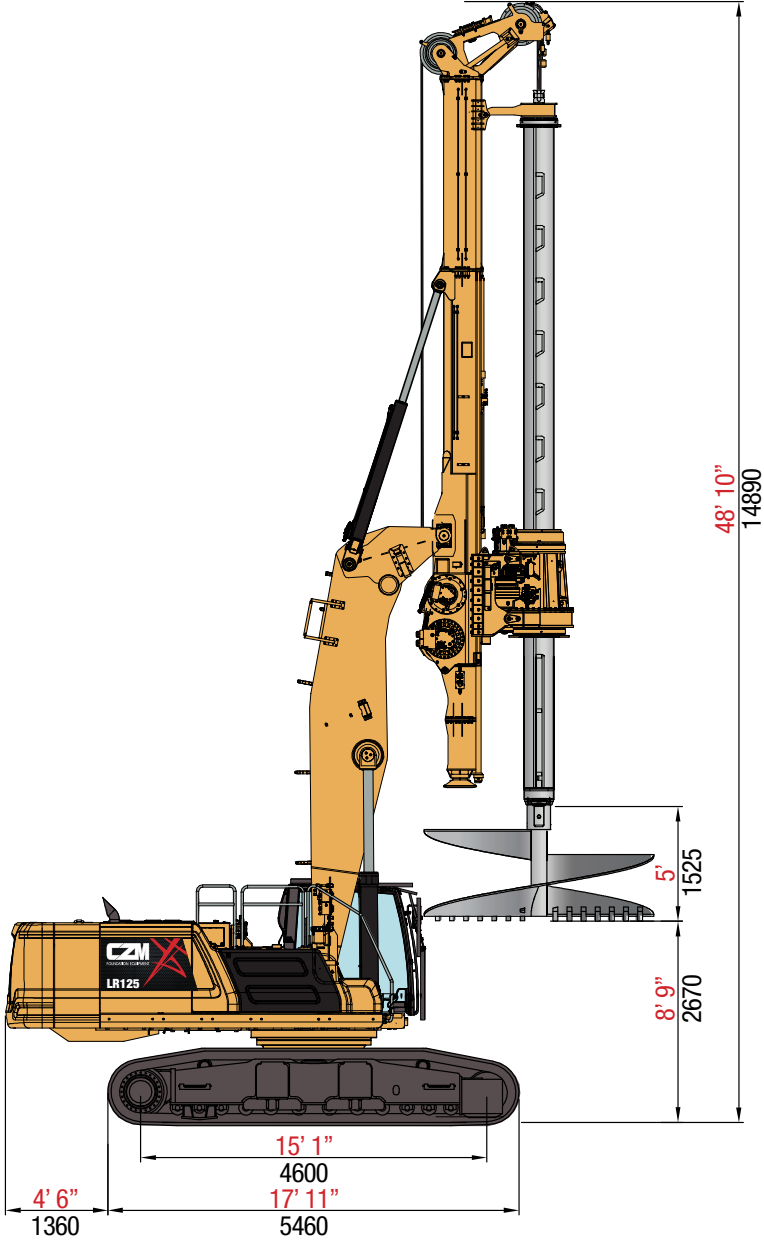
Overall height (boom in)	40 ft 6 in	12,340 mm
Overall height (boom out)	23 ft 10 in	7,250 mm
Operating weight	115,000 lb	52,270 kg



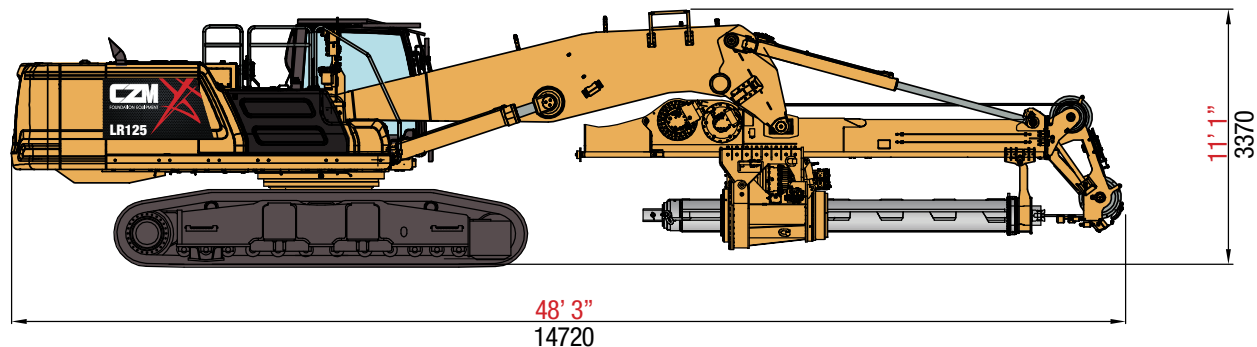
GENERAL DIMENSIONS SHORT MAST



GENERAL DIMENSIONS LONG MAST



TRANSPORT POSITION GENERAL DIMENSIONS



Weight: 115,000 lbs / 52,750 kg



KELLY BAR OPTIONS FOR LR125

	NUMBER OF ELEMENTS	DEPTH - DPT	CLOSED LENGTH	WEIGHT
4/53 Interlock	4	53' / 16m	17'2" / 5.2m	6,400lbs / 2,900kg
5/55 Interlock	5	55' / 16.8m	15'2" / 4.6m	6,800lbs / 3,100kg
4/80 Interlock	4	80' / 24m	23'11" / 7.3m	9,600lbs / 4,300kg
5/55 Friction	5	55' / 16.8m	15'2" / 4.6m	6,800lbs / 3,100kg
5/70 Friction	5	70' / 21m	18'2" / 5.5m	8,600lbs / 3,900kg
5/100 Friction	5	100' / 30.5m	24'2" / 4.6m	12,200lbs / 5,500kg



**SCAN
QR CODE**
To view a video
of the LR125.

LR125

Mounted on a
Cat® 340 TIER IV





FOUNDATION EQUIPMENT

THE COMPANY

CZM is headquartered in Savannah, Georgia, USA. For over 40 years, we have specialized in manufacturing foundation equipment. We design and customize models for many different drilling applications including Drill shafts, CFA/cased CFA, Micropile and anchoring, driven pile and hydraulic hammers and soil improvements. We are a Caterpillar OEM (Original Equipment Manufacturer).

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Specifications are subject to change without notice.