

EK200USM





# **TECHNICAL SPECIFICATIONS**

#### **KELLY BAR APPLICATION**

Std. Drilling Depth (4 elements; interlock kelly bar)*	35 ft	10.6 m
Std. Drilling Depth (6 elements; interlock kelly bar)*	55 ft	16.7 m
Drilling Depth (6 elements; interlock kelly bar)*	40 ft	12.2 m
Drilling Diameter (up the mast)	10 ft	3,050 mm

#### **ROTARY HEAD** - RT 640

Max. torque (nominal)	193,360 lbf.ft	26,700 kgf.m
Working speed of rotation	10-26 rpm	10-26 rpm
Spin-off rotation	50-120 rpm	50-120 rpm

#### **CROWD SYSTEM**

Cylinder stroke - short mast	6 ft 6 in	1,930 mm
Cylinder push force	55,000 lbf	25,000 kgf
Cylinder push speed	41 ft/min	12 m/min
Cylinder pull force	69,000 lbf	31,400 kgf
Cylinder pull speed	32 ft/min	10 m/min

#### **MAIN WINCH**

Max. pull-force - 1st Layer (nominal)	63,540 lbf	28,800 kgf
Max. pull-force - 1st Layer (effective)	50,800 lbf	23,000 kgf
Line speed - 1st Layer	190 ft/min	58 m/min
Cable diameter	1 in	26 mm
Drum diameter - 1st Layer	18.5 in	473 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	7° / 7°	7° / 7°

# DIESEL ENGINE Cat® 340 NEXT GEN (CAT® C9.3 ACERT™)

Net Power – Standard ISO 9249	346 hp	258 kW
Displacement	368 in3	9.3 L
Fuel Tank	158 gal	600 L

# HYDRAULIC SYSTEM (CAT340 TIER IV)

Hydraulic pressure	5,076 psi	350 bar
Flow rate (main circuit)	2x74 gal/min	2x280 L/min
Flow rate (auxiliary circuit)	33.7 gal/min	128 L/min
Hydraulic oil tank capacity	42.5 gal	161 L

# **UNDERCARRIAGE**

Track length	17 ft 10 in	5,450 mm
Length to Center of rollers	15 ft 1 in	4,600 mm
Transport position width (retracted)	9 ft 10 in	3,000 mm
Working position width (extended)	14 ft 7 in	4,450 mm
Shoes width	28.3 in	750 mm

# **TRANSPORT**

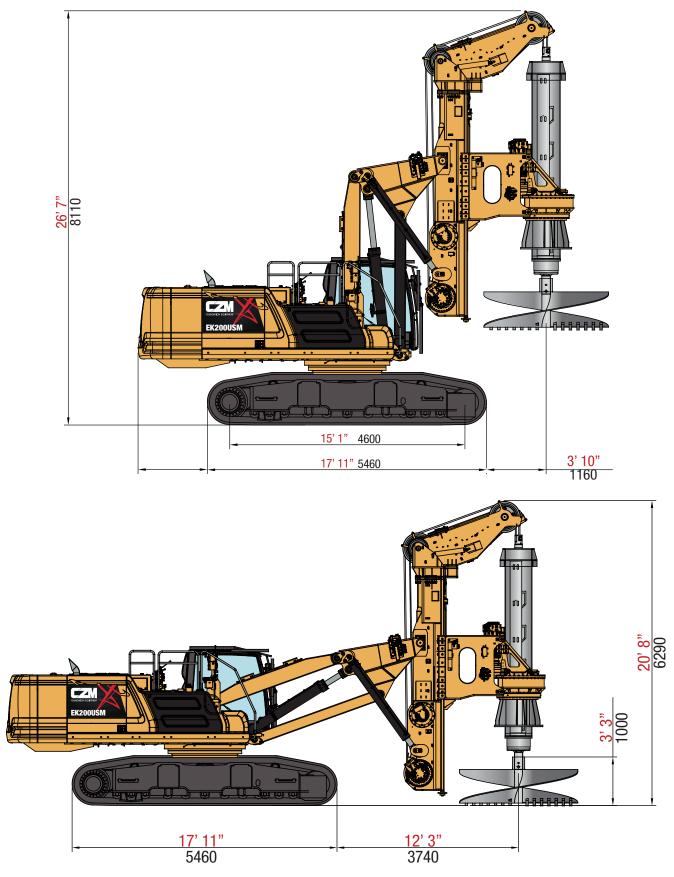
Transport height	11 ft 9 in	3,590 mm
Length	42 ft 2 in	12,860 mm
Transport width	9 ft 11 in	3,000 mm
Transport weight (without kelly)	116,000 lb	52,616 kg
Transport weight (without kelly & counterweight)	102,000 lb	46,300 kg

# **GENERAL DATA**

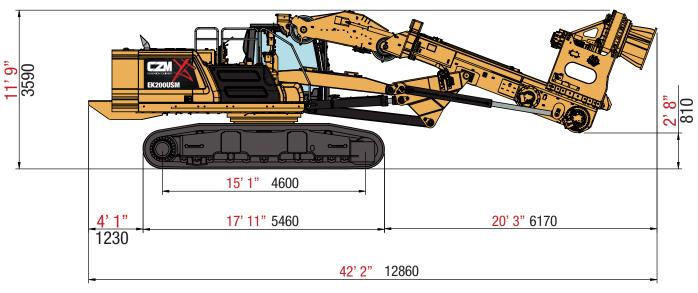
Overall height (boom in)	26 ft 5 in	8,060 mm
Overall height (boom out)	19 ft 10 in	6,040 mm
Operating weight	132,200 lb	59,964 kg



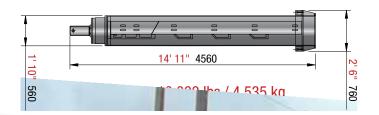
# **GENERAL DIMENSIONS**

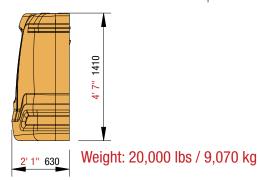


# **TRANSPORT POSITION GENERAL DIMENSIONS**



Weight: 102,000 lbs / 46,300 kg







# **EK200USM FEATURES**

#### **ROTARY:**

- Robust design, with 2 slewing bearings on top and bottom, robust pinion and main gear.
- 2 Groups of Hydraulic Motors / Planetary gears for High Torque and long life.
- 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.

# 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.
- Swivel and Limit switch.

#### KFLLY BAR:

- Large inner passage on rotary allows for large diameter pipes (22in) and thicker keys.
- Keys made of Wear resistant materials **Hardox 450**.
- Thick keys
- Reinforced canister with special material **Weldox 700**.

#### BASF:

- The new Cat 330 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 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 VH4400/4300/700.
Reinforced frame H style variable undercarriage.

# MAST:

Reinforced mast, with high resistance steel Weldox 700.

#### 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

#### **OPTIONAL:**

Self erecting counter weight







# **∠**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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