

CME-750X



Specifications

Power

Cummins 359 cubic inch (5.9 L) 6 cylinder turbocharged diesel engine

Carrier

Tire sizes: Front...50 inch (127 cm) diameter x 25 inch (63 cm) wide x 10-ply

Rear...50 inch (127 cm) diameter x 30 inch (76 cm) wide x 12-ply

Ground bearing pressure (without tools).....7.2 psi (.506 kgf/cm²)

Transmission.....5 speed forward, 1 speed reverse

Axles (front and rear).....planetary with no-spin differentials

Front axle disconnect.....standard

Steering.....hydraulic power

Front winch.....15,000 pound (6,804 kg)

Rotary Drive

Standard :

Rotary torque.....10,191 foot pounds (13,817 Nm) max

Rotary speed.....up to 727 rpm max

High torque (optional):

Rotary torque.....13,105 foot pounds (17,768 Nm) max

Rotary speed.....up to 565 rpm max

Transmission.....5 speed forward, 1 speed reverse

Hollow spindle I.D.2 3/4 inch (7 cm) [3 3/4 inch (9.5 cm) available]

Hydraulic Feed System

Retract force.....30,000 pounds (13,608 kg)

Pulldown force.....20,000 pounds (9,072 kg)

Retract rate (max).....102 feet (31 m) per minute

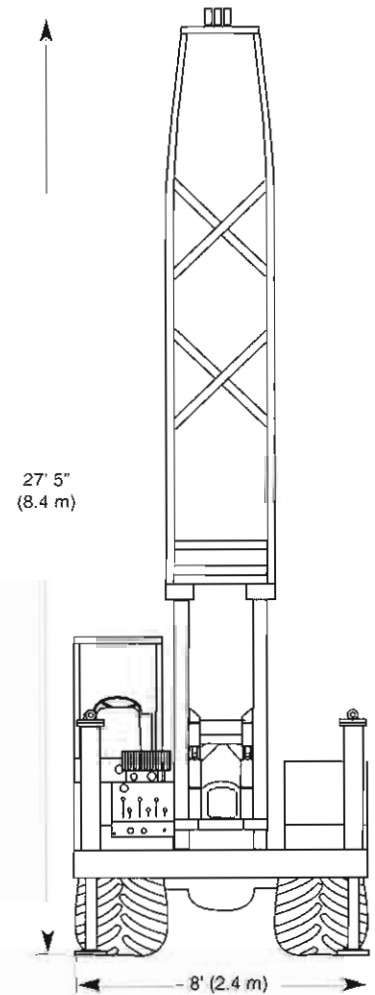
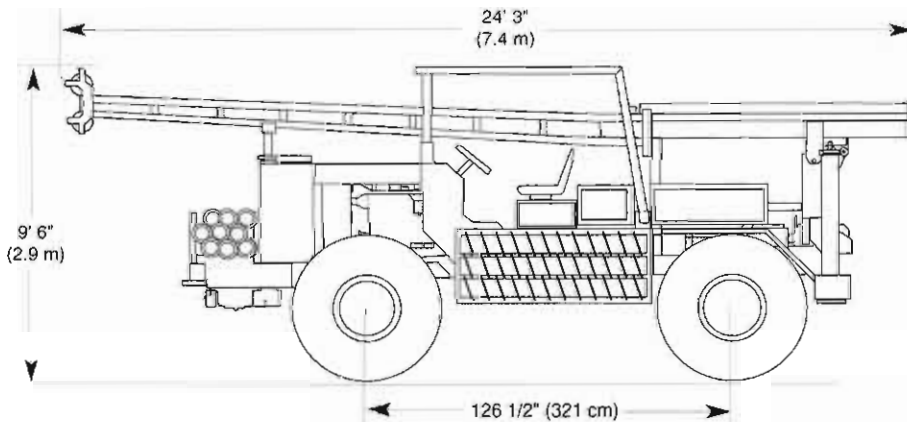
Feed rate (max).....53 feet (16 m) per minute

Stroke.....72 inch (183 cm)

Leveling System

Three jacks, inverted design with chrome-plated piston rods enclosed at all times

Stroke.....36 inch (91.4 cm)



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CME-750X



All-Terrain Versatility

Sure...the CME-750X can get you to remote drilling sites that require all-terrain-vehicle mobility. But it's equally at home on the concrete streets of a city.

The CME-750X gives you the versatility to tackle almost any job.

Since it's not oversize, it is easily transported on a trailer. Any time of the day, any day of the week, without special permits. The rubber tires will not damage most paved surfaces. And a front axle disconnect allows you to shift from 4-wheel to 2-wheel drive to prevent axle wind-up when driving on hard pavement.



But when the going gets rough, the CME-750X really proves its value.

This all terrain drill lets you bid confidently on jobs that are hard to get to. It can eliminate the need for expensive access roads. You won't find yourself wasting valuable time waiting for a bulldozer to pull your truck-mounted rig out of the mud. No more rescheduling jobs until the weather improves and the ground dries up or the snow melts. No more turning down jobs because you just can't get to the location.

The return on investment from a CME-750X just might be the quickest and most substantial you'll ever make.

Low ground bearing pressure also means less impact on the environment.

Ground bearing pressure is only 7.2 psi (.506 kgf/cm²) to 8.4 psi (.591 kgf/cm²), depending on tools on-board. Compare that to the 35 psi (2.45 kgf/cm²) to 50 psi (3.5 kgf/cm²) ground bearing pressure of a truck-mounted drill. This high flotation lets you negotiate mud, snow, sand and rocks...all with less damage to the terrain. That can be extremely important in environmentally sensitive areas such as parks, farms or golf courses.

The bottom line is, you can get to the drill site easier, quicker and more economically.

Planetary front and rear axles with no-spin differentials and aggressive all-terrain tires...the ultimate combination for off-road traction.

Planetary axles put the gear reduction at the wheels. That means less stress on other drive train components. And no-spin differentials give you true 4-wheel pulling power.

The 50 inch (127 cm) diameter tires are flexible and tend to flatten out on the bottom. This provides more ground contact area and lower ground bearing pressure per square inch. They also tend to flex and envelope obstacles, rolling over objects that can cut into firmer tires.

For optimum drilling performance, we designed the CME-750X to be heavier in the rear. So, to keep ground bearing pressure equal on all four wheels, we put wider, 30 inch (76.2 cm) tires on the back, (compared to the 25 inch [63.5 cm] wide tires up front). The front axle oscillates when traveling on uneven terrain, allowing all four tires to remain on the ground for better traction and load distribution.

Hydraulic, wet disc type, service brakes are located at each wheel for maximum stopping power. And since they are enclosed inside the planetaries, they are not adversely affected by mud and water. An independent, mechanically applied, hydraulically released, disc parking brake on the driveline is also provided.





High ground clearance.

The underside of the CME-750X is protected by a steel belly pan with 24 inches (61 cm) of ground clearance. There are no protrusions under the carrier to hang up on logs or rocks.

In order to keep the center of gravity as low as possible, we mounted the drill to the carrier frame, in between the tires. We also mounted the two water tanks underneath the deck. Their combined capacity is 225 gallons (852 L).

Single engine provides big savings.

Power for both driving and drilling is provided by a 359 cubic inch (5.9 L) turbocharged Cummins diesel. This single engine means big savings in your initial investment, as well as overall weight, space and maintenance.

ROPS protection is standard.

A roll-over protective structure is standard on the CME-750X. It meets SAE specification J1040C.

Integral design gives you completely self-contained drilling unit with no compromises.

Since we designed the carrier ourselves as an integral part of the overall drill, we were able to utilize all space to the best advantage. The deck layout provides plenty of easily accessible storage area for augers, rods and other drilling tools.

The 126 1/2 inch (321.3 cm) wheelbase accommodates 5 foot (1.5 m) augers in a rack below deck, between the front and rear tires. Lockable tool boxes are provided on both sides of the drill. The CME-750X can carry everything you need to get the job done.



Field-Proven Drilling Performance

The CME-750X is a 25 year veteran of the drilling industry. That means you get proven drilling performance and dependability, second to none.

Hydraulic feed and retract system provides 30,000 pounds (13,608 kg) of retract force and 20,000 pounds (9,072 kg) of down pressure.

The hydraulic vertical drive system has no chains which need lubrication or cables which can stretch. It gives you precise control of force on the drilling tools.

For exceptional drilling efficiency, the feed system has two separate control levers. One lever gives you manual control of feed and retract and features both normal and fast retract positions. Retract rates of up to 102 feet (31.1 m) per minute let you add or remove drilling tools quickly.

The other lever is used exclusively for feed and has a detent engaged position. Pressure controls let you dial in specific feed rate and feed pressure. This system is extremely advantageous in core drilling and other operations that require precise control of feed.

And since the two control levers are isolated, you can use the manual control for rapid retract without changing pressure settings for the detent feed control.

The distance from the sheaves to the ground is 27 feet, 5 inches (8.4 m). That means you can hoist 20 feet (6 m) of rods with clearance to spare. When the CME-750X is equipped with three hoists, you can pull 60 feet (18.3 m) of rods without having to lay any down on the ground or on the deck.



Control logic - the key to operator productivity.

Drilling and set-up controls are logically arranged on a control panel located at the driller's station. For added convenience, we've staggered the more frequently used controls, such as the hydraulic hoists and sliding base levers.

Dependable mechanical rotary drive provides 10,191 foot pounds (13,817 Nm) of rotary torque, plus high rotation speed when you need it.

You get the torque you need for auger drilling, as well as rotation speeds over 725 rpm for rotary or core drilling applications. Other optional rotation speed and torque combinations are also available, including a high-torque rotary drive that gives you 13,105 foot pounds (17,768 Nm) of torque.*

With five forward gears and one reverse, there's a rotation speed and torque combination available for just about any situation. And since the transmission does not travel vertically with the spindle, you won't find yourself unable to change gears when you're at the top of the feed stroke.

A torque limiting clutch, which is adjustable by turning three bolts, provides protection against shock overload.



Patented spindle brake stops rotation in an instant.

An emergency spindle brake stops rotation in less than a revolution. This system is activated by two conveniently located push button switches as well as by strategically located wobble switches.

In-out and sideways slide base make the job easier and quicker.

The drill is mounted to the carrier on a hydraulically actuated sliding base. The 15 inch (38.1 cm) in-out movement allows you to quickly move the drill off the borehole and align the sheaves for lifting tools with the cathead or any of the hoists.

The 6 inch (16.5 cm) sideways movement gives you even more versatility. Aligning augers or rods when making connections is easy. Or, if the bit drifts off at an angle when you start a hole, you can quickly straighten it to a vertical position.

If you've ever tried to line up your rig on an existing borehole, you've probably already recognized another benefit of the slide base.

*optional at extra cost



*Safety...
it's a habit you can live with.*

Optional equipment for even more versatility and productivity

Hydraulic rod holder and breakout wrench*

The hydraulic rod holder makes your job quicker and safer. It not only pivots from on-hole to off-hole positions, but also hydraulically moves in and out. That's what makes it so compatible with the in-out and sideways slide base. You'll never have a problem lining up drill rods or augers.



Automatic SPT hammer*

Our 140 pound (63.5 kg) automatic hammer gives you extremely consistent and accurate Standard Penetration Test results, meeting all ASTM-D-1586-99 requirements. That's because there are no ropes or cables to impede the free-fall of the weight.

The hammer swings from the stored position to on-hole position. Since raising and lowering is done

hydraulically, set-up is quick and almost effortless.

For maximum safety, all moving parts are enclosed, including the impact area between weight and anvil. A 340/140 pound (154 kg/63.5 kg) hammer is also available.

Quick disconnect mast

This feature allows you to quickly disconnect the mast when working inside buildings, underneath bridges or in other low overhead drilling locations. Since the mast is completely separated from the uprights, it doesn't interfere with other drill functions such as the in-out and sideways slide base.

With the mast in a horizontal position, you simply clamp it to its storage rack and extend the drill's in-out slide base. This pulls the sockets on the upright drill frame away from the large tapered pins on the mast.



Patented angle drilling system*

This unique system is especially effective for drilling underneath ponds, storage tanks or other structures. When used with our patented Continuous Sample Tube System, you can even take soil samples while drilling angle holes.

The angle drilling system will also allow you to drill vertically with the carrier positioned on an uphill slope. That can eliminate the time-consuming job of leveling an area on which to place the rig.

And, since the Kelly drive is directly connected to the right angle drive box, you can raise or lower the mast with the drive-train already connected and ready to go.

*Patented by CME



8,500 pound hoist (3,856 kg)

Additional optional equipment

Continuous sample tube system

High torque rotary drive

Underside sheave

Low clearance sheave

Utility air tool system

Cathead, 8 inch (20.3 cm) diameter

8,500 pound (3,856 kg) hydraulic hoist

7,000 pound (3,175 kg) hydraulic hoist

3,200 pound (1,452 kg) hydraulic hoist

1,800 pound (816 kg) hydraulic hoist

Hydraulic wireline hoist

Auger and rod guides for angle drilling

Fluted kelly and chuck assembly

Drill rod chuck

Spindle adapter

Water pumps:

Moyno progressive cavity.....	36 gpm/225 psi (136 lpm/1,551 kPa)
Moyno progressive cavity.....	84 gpm/225 psi (318 lpm/1,551 kPa)
FMC/Bean	25 gpm/500 psi (95 lpm/3,448 kPa)
FMC/Bean	35 gpm/500 psi (132 lpm/3,448 kPa)
Gardner-Denver 4 1/2x5	148 gpm/197 psi (560 lpm/1,358 kPa)

(other pumps available)



Fluted kelly and chuck assembly



FMC/Bean water pump



8 inch (20.3 cm) diameter cathead