When the going gets rough, the CME-550X really proves its value
The return on investment from a CME-550X just might be the quickest and most substantial you'll ever make. You won't have to reschedule jobs until the ground dries up, the snow melts or an access road is built. In fact, this rig can eliminate the need for expensive access roads.

Low ground bearing pressure also means less impact on the environment
Ground bearing pressure of the CME-550X is only 9 psi (.632 kgl/cm²) to 11 psi (.773 kgl/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.

The CME-550X gives you the versatility to handle drilling jobs that are on Main Street
The CME-550X's 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.
Since it's not overwidth, the CME-550X is easily transported on a trailer. Any time of the day or week, without special permits.

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 aggressive lug design of the 16-ply mud and snow tires provides a deep, sharp bite in soft terrain. And the open-center tread pattern assures efficient self-cleaning action.
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.
Low center of gravity and high ground clearance

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 for even more stability. Their combined capacity is 160 gallons (606 L).

The underside of the CME-550X is protected by a steel belly pan with 22.5 inches (57 cm) of ground clearance.

Integral design gives you a 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 121 inch (307 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-550X can carry everything you need to get the job done.

Single engine provides big savings

The CME-550X utilizes only one engine, a Cummins 4.5 L (275 cubic inch) 4-cylinder turbocharged and charge air cooled diesel, for both driving and drilling. That means big savings in your initial investment, as well as overall weight, space, and maintenance savings.

ROPS protection is standard

A roll-over protective structure is standard on the CME-550X. It meets SAE specification J1040C.
Hydraulic feed and retract system provides 28,275 pounds (12,826 kg) of retract force and 18,650 pounds (8,460 kg) of down pressure

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

Retract rates up to 35 feet (10.7 m) per minute and feed rates up to 55 feet (16.7 m) per minute let you add or remove drilling tools quickly.

The distance from the sheaves to the ground is 26 feet (7.9 m). That means you can hoist 20 feet (6 m) of rods with clearance to spare. When equipped with three hoists, the CME-550X can pull 60 feet (18.3 m) of rods without having to lay any down on the ground or on the deck.

Dependable mechanical rotary drive provides 9,075 foot pounds (12,304 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 up to 690 rpm for rotary or core drilling applications. Other optional rotation speed and torque combinations are also available, including a high-speed rotary drive that gives you spindle rotation speeds up to 920 rpm.

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.

Patented spindle brake stops rotation in an instant

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

Slide base makes the job easier and quicker

The drill is mounted to the carrier on a hydraulically actuated sliding base. A 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.

A 6.5 inch (16.5 cm) side ways 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 bases.

Patented angle drilling system

This unique system is especially effective for drilling under neath 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 drivetrain already connected and ready to go.
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. For efficient operation, the breakout wrench is mounted at the pivot point of the rod holder arm.

Automatic 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 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 the weight and anvil. A 340/140 pound (154/63.5 kg) hammer is also available.

Quick mast disconnect
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 slide base.

With the mast in a horizontal position, you simply clamp it 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.

Additional optional equipment
Continuous sample tube system
High-torque rotary drive
High-speed rotary drive
Underside sheave
Low clearance sheave
Auger and rod guides for angle drilling
Fluted Kelly and chuck assembly
Drill rod chuck
Spindle adapter
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
5,000 pound (2,268 kg) hydraulic hoist
3,200 pound (1,452 kg) hydraulic hoist
1,800 pound (816 kg) hydraulic hoist
900 pound (408 kg) hydraulic wireline hoist
Water pumps:
Progressive cavity: 36 gpm/225 psi (136 lpm/1,551 kPa)
Progressive cavity: 84 gpm/225 psi (318 lpm/1,551 kPa)
Triplex piston: 25 gpm/500 psi (95 lpm/3,448 kPa)
Triplex piston: 40 gpm/800 psi (151 lpm/5,516 kPa)
(other pumps available)

*Patented by CMF
Specifications

Power
Cummins 4.5 L (275 cubic inch) 4-cylinder turbocharged and charge air cooled diesel engine

Carrier
Tire size:
Front: Single 46.1 inch (117.1 cm) diameter x 23.6 inch (60 cm) wide 16-ply (600/50-22.5)
Rear: Single 46.1 inch (117.1 cm) diameter x 28 inch (71.1 cm) wide 16-ply (710/40-22.5)
Ground bearing pressure (without tools) ........................................... 9 psi (.632 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
Hydraulic front winch, standard .................................................. 12,000 pound (5,443 kg)
Hydraulic front winch, optional .................................................. 20,000 pound (9,071 kg)

Rotary Drive
Standard:
- Rotary torque ................................................................. 9,075 foot pounds (12,304 Nm) max
- Rotary speed ........................................................................ up to 690 rpm max
High torque:
- Rotary torque ................................................................. 11,300 foot pounds (15,320 Nm) max
- Rotary speed ........................................................................ up to 550 rpm max
High speed:
- Rotary torque ................................................................. 6,800 foot pounds (9,220 Nm) max
- Rotary speed ........................................................................ up to 920 rpm max
Clutch, heavy duty ....................................................................... 13 inch (33 cm)
Transmission ........................................................................... 5 speed forward, 1 speed reverse
Hollow spindle I.D, standard ....................................................... 2 3/4 inch (7 cm)
Hollow spindle I.D, optional ....................................................... 3 3/4 inch (9.5 cm)

Hydraulic Feed System
Retract force ........................................................................... 28,275 pounds (12,826 Kg)
Pulldown force ........................................................................ 18,650 pounds (8,460 Kg)
Retract rate (max) .................................................................... 35 feet (10.7 m) per minute
Rapid retract rate (max) ............................................................ 90 feet (27.4 m) per minute
Feed rate (max) ......................................................................... 55 feet (16.7 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)
Additional Off-Road Drills from CME

CME-750X

CME-850XR

CME-1050

CENTRAL MINE EQUIPMENT COMPANY
4215 Rider Trail North, Earth City (St. Louis), Mo 63045
Phone: 314-291-7700 • 1-800-325-8827 • FAX: 314-291-4880
E-mail: info@cmeeco.com • Website: www.cmeeco.com

Performance ratings are based on engineering specifications, calculations and accepted industry standards. Capacities vary according to drilling conditions. CME reserves the right to amend these specifications at any time, without notice.