# CME-95

# The CME-95...

# This Drill Means Business

### You can take on the biggest jobs with confidence, which means more business for you

Whether it's a large diameter auger hole, or a deep rotary job, no other rig is going to get it done faster or more efficiently than the CME-95. Day after day...year after year.

That's because this rig was designed from the ground up for the toughest jobs. It's not only powerful, it's rugged. Take a look at the components. The right angle drive...the rotary box...the frame... everything is massive. This rig is engineered to handle the forces it produces...and more.

### Rugged mechanical rotary drive with power-shift transmission gives you 31,000 ft lbs (42,036 Nm) of torque, plus high rotation speeds

You get the torque you need for turning large diameter augers, as well as rotation speeds over 490 rpm for rotary or core drilling applications. Other optional rotation speed and torque combinations are also available for your specific drilling applications.

The power shift transmission features hydraulically actuated clutches and a torque converter that provides shock overload protection. With four gears in both forward and reverse, there's a rotation speed and torque combination available for any situation.

### Low speed drive system makes lining up auger connections easy

This independent, hydraulically actuated system gives you infinite regulation of spindle rotation from 0 to 114 rpm with up to 9,300 ft lbs (12,611 Nm) of torque.

It is especially beneficial when lining up auger connections. It also works exceptionally well in down-the-hole hammer drilling applications.

### Patented spindle brake stops rotation in an instant*

Our emergency spindle brake can stop rotation in less than a revolution. This system is activated by two conveniently located push button switches, as well as by strategically located multi-directional wobble switches.

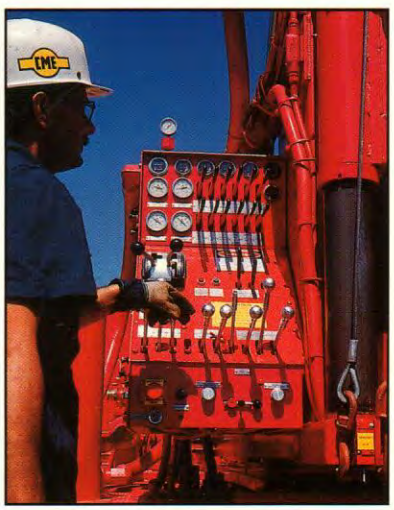
### Hydraulic feed and retract system provides 62,830 lbs (28,500 kg) of retract force and 33,135 lbs (15,030 kg) of down pressure

The CME-95 has plenty of retract power for pulling heavy strings of augers. And the 75 inch (1.9 m) stroke hydraulic vertical drive system has no chains 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 feed controls. After you set the first lever for drilling feed rate and pressure, it will not be affected by changes in engine rpm or formation resistance (until the pre-set down pressure is reached).

The second feed lever is used for rapid retract when adding rods or augers. Retract rates of up to 108 ft (33 m) per minute are available without changing the setting of the first feed lever.

### Control logic-a key to operator productivity




Drilling and set-up controls are logically arranged on a control panel located at the driller's station. The most frequently used controls, such as the feed, hydraulic hoists and sliding base levers, are staggered for easier identification and operation.

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

# Optional Equipm

# for even more vers

### Hydraulic kelly bar lift system for quick and easy set-up*

This system makes coupling and uncoupling the kelly bar to the right angle drive virtually effortless. After raising the mast, the kelly bar is hydraulically lowered until the flex coupling engages the right angle drive output shaft.

An interlock system is furnished that will not allow lowering of the mast until the kelly is hydraulically raised and disconnected from the right angle drive.

### Slide bases make the job easier and quicker

A 20 inch (50.8 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.

An 8 inch (20.3 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 bases.

### 12,000 pound (5,443 kg) hydraulic hoist for big lifting jobs

The standard hydraulic hoist is controlled by a single lever, conveniently located at the driller's station. Fast line speeds of 133 ft (41 m) per minute up and 578 ft (176 m) per minute down give you excellent hoisting efficiency.

### 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-1586-84 requirements. That's because there are no ropes or cables to impede the free-fall of the weight. The hammer swings on a hydraulic cylinder, from the stored position to on-hole position. Since raising and lowering is done hydraulically, set-up is quick and almost effortless.

To improve safety, all moving parts are enclosed, including the impact area between weight and anvil. A 340 pound (154 kg) hammer is also available.

### 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 telescopes in and out. It is especially compatible with the in-out and sideways slide bases.

*patented by CME

# atility

### Plenty of auger storage available

In addition to the standard above deck auger storage areas, the CME-95 is available with several underbody auger rack configurations, including hydraulically operated racks that slide in and out for easy access.

### Fluted kelly and chuck assembly

If your drilling operations include a substantial amount of core or rotary drilling, the CME fluted kelly and chuck assembly can save you a lot of time. The 5 ft (1.5 m) stroke of the kelly, combined with the 6 ft 3 inch (1.9 m) stroke of the feed system, gives you a total stroke of more than 11 ft (3.4 m). You can use 10 ft (3 m) drill rods, which means fewer rod connections and less rod handling.

The kelly has two vertical slots and two horizontal slots which are engaged by the chuck to provide rotary torque and thrust. The CME fluted kelly can even be rotated without engaging the horizontal thrust keys. This gives you the option of using the weight of the drill string to provide down pressure on the bit.

The 2 5/8 inch (6.5 cm) fluted kelly and chuck assembly is available in either manual or hydraulically actuated configurations. Or, if you're using 2 3/8 inch (6.3 cm) API rods for larger diameter holes, a 3 1/2 inch (8.9 cm) O.D. fluted kelly and hydraulic chuck assembly is available.

### Water tank / tool box combination

A 470 gallon (1,779 L) steel or stainless steel water tank is available that includes 15 inch (38 cm) deep tool boxes on each side. For added convenience, the tool boxes feature removable shelves and lockable swing out doors.

Additional options include a rod storage area under the water tank and a storage rack above the water tank. Other water tank/tool box configurations are also available to fit your specific needs.

### 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 slide bases.

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.

## Additional optional equipment:

Continuous Sample Tube System
Underside sheave
Cathead, 8 inch (20.3 cm) diameter
4,000 lb (1,814 kg) hydraulic hoist
max line speed...100 ft (30.5 m)/min
2,200 lb (998 kg) hydraulic hoist
max line speed...200 ft (61 m)/min
1,125 lb (510 kg) hydraulic wireline hoist
max line speed...400 ft (122 m)/min
Drill rod chuck
Dual pipe vises
Quick disconnect spindle adapter
Water pumps:

| | |
|---|---|
| Progressive cavity | 36 gpm/225 psi (136 lpm/1,551 kPa) |
| Progressive cavity | 84 gpm/225 psi (318 lpm/1,551 kPa) |
| Bean | 35 gpm/500 psi (132 lpm/3,448 kPa) |
| Gardner Denver 41/2x5 | 148 gpm/197 psi (560 lpm/1,358 kPa) |
| Gardner Denver 5x6 | 200 gpm/310 psi (757 lpm/2,137 kPa) |

(other pumps available)

Dual Moyno 84 gpm/225 psi water pumps

Cathead

# CME-95

# Specifications

### Power

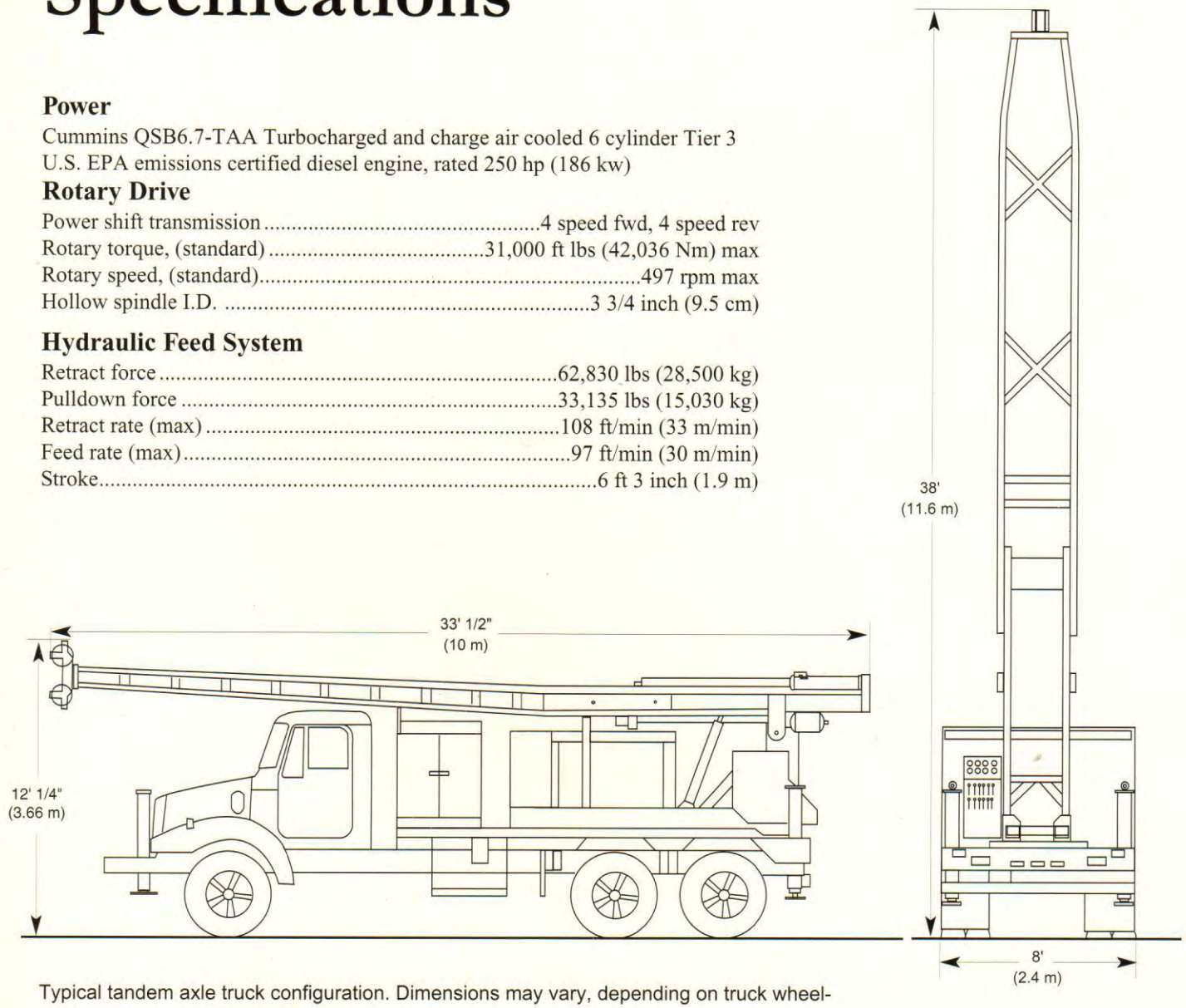
Cummins QSB6.7-TAA Turbocharged and charge air cooled 6 cylinder Tier 3 U.S. EPA emissions certified diesel engine, rated 250 hp (186 kw)

### Rotary Drive

| | |
|---|---|
| Power shift transmission | 4 speed fwd, 4 speed rev |
| Rotary torque, (standard) | 31,000 ft lbs (42,036 Nm) max |
| Rotary speed, (standard) | 497 rpm max |
| Hollow spindle I.D. | 3 3/4 inch (9.5 cm) |

### Hydraulic Feed System

| | |
|---|---|
| Retract force | 62,830 lbs (28,500 kg) |
| Pulldown force | 33,135 lbs (15,030 kg) |
| Retract rate (max) | 108 ft/min (33 m/min) |
| Feed rate (max) | 97 ft/min (30 m/min) |
| Stroke | 6 ft 3 inch (1.9 m) |




Typical tandem axle truck configuration. Dimensions may vary, depending on truck wheel-base or all-wheel drive applications.

Central Mine Equipment Company manufactures a complete line of drilling equipment for the environmental, geotechnical and water well drilling industries of the world. We have been a leader in drilling product quality, innovation and service for over seventy five years.

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