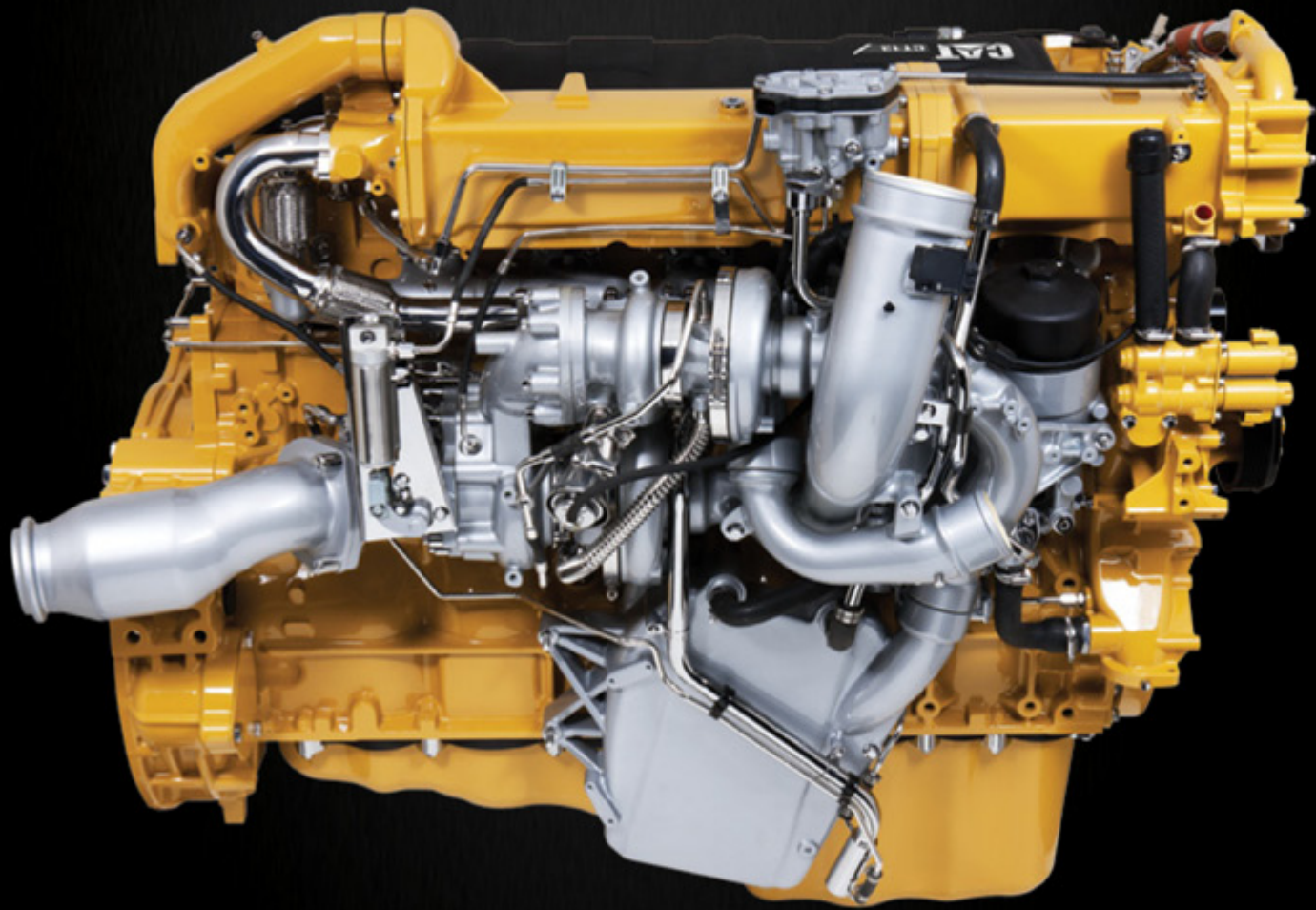


# POWER FOR THE WORK YOU DO.

CAT® CT13 VOCATIONAL TRUCK ENGINE



**CAT**®



# HEAVY-DUTY, REDEFINED.

**TO GET YOUR TOUGHEST JOBS DONE**, you need an engine that works even harder than you do. That's why Caterpillar offers the CT13 engine for our vocational trucks. It delivers every ounce of power, performance and productivity you need—redefining heavy-duty with all the high-performance characteristics and rugged durability you expect from Cat® Engines.

Plus, the CT13 is backed by the unmatched support of the North American Cat Dealer Network. So you're assured of superior engine quality and long-term value to help your business succeed.

# THE ULTIMATE POWER MATCH.

**CAT VOCATIONAL ENGINES** are built with ratings specifically created for vocational truck applications. They're designed to deliver the ultimate horsepower/torque combinations to tackle the toughest jobs and harshest work environments.

Featuring an ideal match of power and performance, the Cat CT13 engine will meet the demands of your specific job and operating conditions. So whether your next Cat Vocational Truck is a dump truck, concrete mixer, waste carrier or heavy hauler, it will be equipped with the right horsepower and torque to match the demands of your work.

## GET THE POWER YOU NEED.

Built specifically for vocational applications, the Cat CT13 engine offers horsepower/torque combinations to meet the demands of your work. You can choose a CT13 engine with ratings from 365 bhp to 475 bhp with up to 1700 lb-ft peak torque—all the power you need to get the job done.

### CAT CT13 PERFORMANCE DATA

| HORSEPOWER<br>(BHP @ 1700 RPM) | TORQUE PEAK<br>(LB-FT @ 1000 RPM) | GOV. SPEED<br>(RPM) | FULLY DEVELOPED TORQUE<br>(LB-FT @ 800 RPM) |
|--------------------------------|-----------------------------------|---------------------|---|
| 365                            | 1250                              | 1700                | 686   |
| 370                            | 1350                              | 1700                | 770   |
| 390                            | 1450                              | 1700                | 811   |
| 410                            | 1450                              | 1700                | 828   |
| 430                            | 1550                              | 1700                | 868   |
| 475                            | 1700                              | 1700                | 959   |



#### CAT CT13 ENGINE

- Unique engine ratings created specifically for vocational applications, resulting in the ultimate horsepower/torque combinations
- Highly efficient Selective Catalytic Reduction (SCR) solution
- Upgraded in-cylinder technology with a proven aftertreatment system
- Quiet, light engine architecture that delivers low cost of operation
- High-pressure common-rail fuel system with injection pressures of 2200 bar (approximately 32,000 psi)
- Twin-series turbochargers with interstage cooler

#### CAT CT13 SPECIFICATIONS

|                                    |  |
|------------------------------------|--|
| <b>ENGINE TYPE</b>                 | Diesel, 4-Cycle  |
| <b>CONFIGURATION</b>               | Inline 6-Cylinder  |
| <b>DISPLACEMENT</b>                | 12.4 L (758 cu. in.)   |
| <b>BORE AND STROKE</b>             | 4.96 in. & 6.54 in. (12.6 cm & 16.6 cm)                        |
| <b>COMPRESSION RATIO</b>           | 17:1   |
| <b>ASPIRATION</b>                  | Dual Series Turbochargers, Intercooler and Aftercooler         |
| <b>COMBUSTION SYSTEM</b>           | Direct Injection   |
| <b>LUBRICATION SYSTEM CAPACITY</b> | 42 Quarts (40 L)   |
| <b>COOLANT DRAIN INTERVAL</b>      | 600,000 miles (965,606 km)                                     |
| <b>TOTAL ENGINE WEIGHT (DRY)</b>   | 2400 lbs. (1089 kg)  |
| <b>DIMENSIONS</b>                  | L 59 in. x W 37 in. x H 49 in. (L 150 cm x W 94 cm x H 125 cm) |
| <b>VALVES</b>                      | 4 Valves Per Cylinder, Overhead Cam Actuated                   |
| <b>HORSEPOWER</b>                  | 365-475 hp (268 - 349 kW) @ 1700 rpm                           |
| <b>PEAK TORQUE</b>                 | 1250-1700 lb-ft. (1695 - 2305 Nm) @ 1000 rpm                   |

# ENGINEERED FOR THE TOUGHEST JOBS.

**CAT VOCATIONAL TRUCK ENGINES** are engineered to deliver peak power and performance to handle your biggest, toughest jobs. They're built for unprecedented reliability, durability and years of service life to help lower your operating costs.

- » **HIGH-PRESSURE, COMMON-RAIL FUEL SYSTEM** delivers ideal injection pressures for precise injection timing, optimized combustion and reduced exhaust emissions. With operating pressure up to 32,000 psi, it is fuel efficient—and delivers quieter operation for increased driver comfort.
- » **ADVANCED AIR MANAGEMENT SYSTEM** achieves peak torque at 1000 rpm and holds steady to 1200 rpm to reduce gear-shifting and allow for fewer downshifts up steep grades
- » **DUAL SEQUENTIAL TURBOCHARGERS** and high-pressure injection system deliver optimum torque for operating conditions, from faster acceleration to handling steep grades
- » **MAIN BEARINGS** have a large surface area for added strength and durability
- » **WET SLEEVE** design provides optimal cylinder cooling efficiency
- » **WIRING HARNESS** is foam-molded to secure connections for enhanced reliability
- » **KEY SYSTEMS AND COMPONENTS** of the engine, from the valve cover to the oil and fuel filters, are easy to access. So maintenance is more convenient, which helps minimize downtime.
- » **SINGLE ELECTRONIC CONTROL MODULE (ECM)** and fewer electrical connections result in less diagnostic and maintenance time
- » **OPTIONAL COMPRESSION BRAKE** is available to fit your specific application





## EMISSIONS TECHNOLOGY HARD AT WORK.

The CT13 engine features a highly efficient Selective Catalytic Reduction (SCR) solution with upgraded in-cylinder technology and a proven aftertreatment system to deliver low cost of operation.

### » COMMON RAIL FUEL INJECTION TECHNOLOGY

System technology automatically injects fuel into the cylinder several times per cycle under high pressure. This extends the injection cycle, making combustion more complete, which reduces NOx emissions and improves fuel efficiency.

### » PISTON COMBUSTION BOWL DESIGN

The unique design maximizes fuel swirl inside the cylinder for a more complete burn.

### » AIR MANAGEMENT SYSTEM

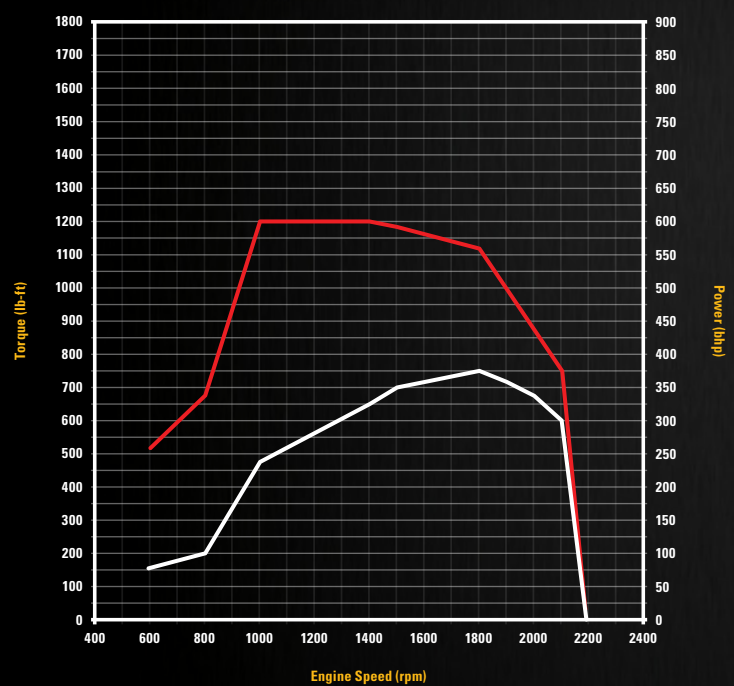
The piston combustion bowl design and high injection pressure work in tandem to atomize fuel, so it enters the cylinder more evenly. This results in a cleaner, more complete burn that delivers added power to your truck's wheels, while reducing exhaust soot.

### » ELECTRONIC CONTROLS

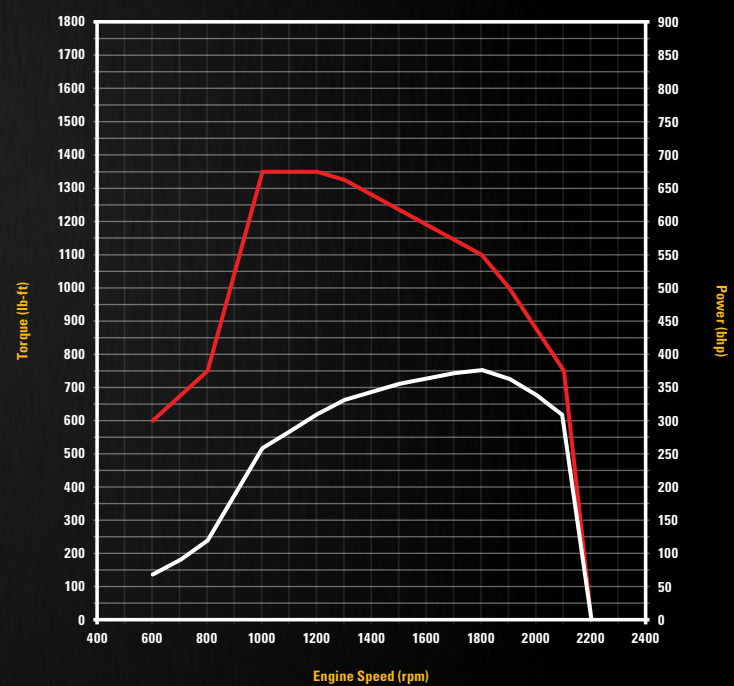
The computing power of the engine controller constantly determines the optimum fuel-air mix the engine requires as operating conditions change, resulting in maximized engine power and efficiency.

# TORQUE/POWER CURVES

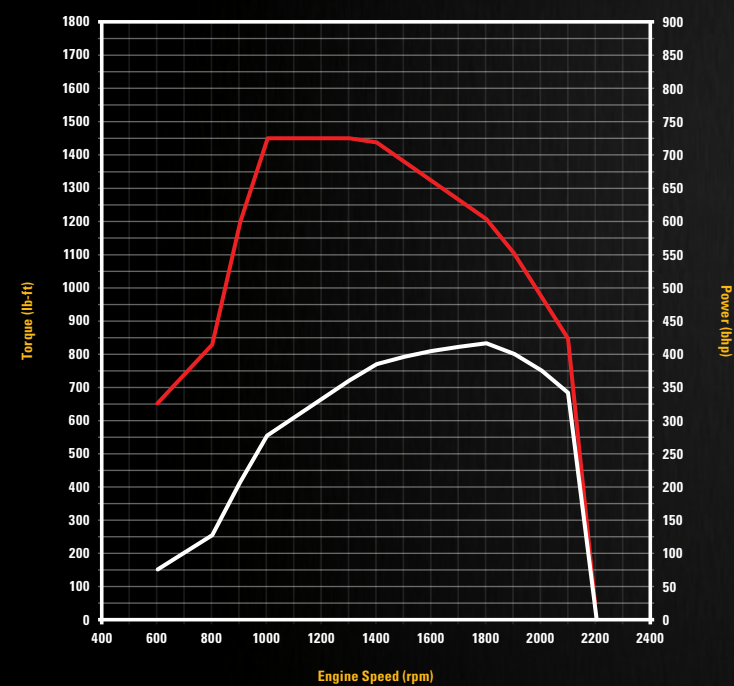
**Cat CT13 – 365 bhp @ 1700 rpm** — Torque — Power



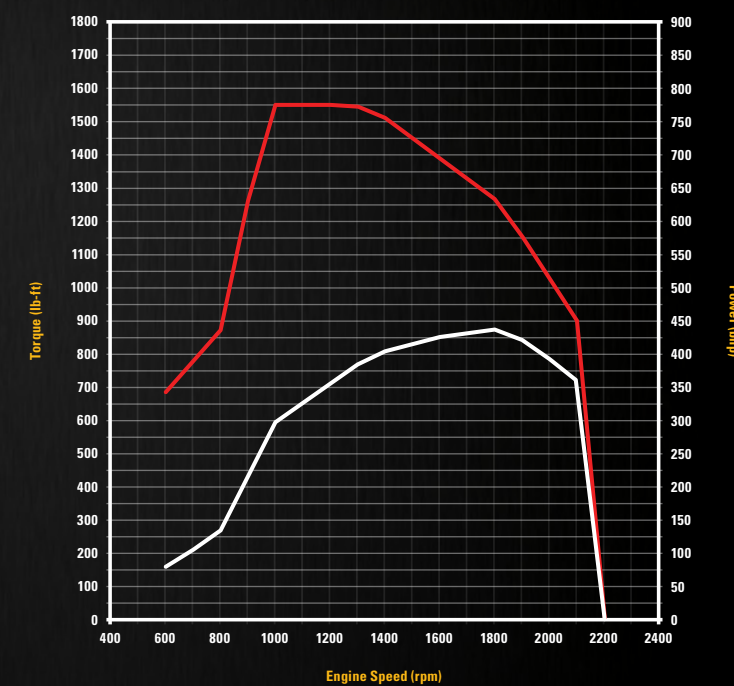
**Cat CT13 – 370 bhp @ 1700 rpm** — Torque — Power



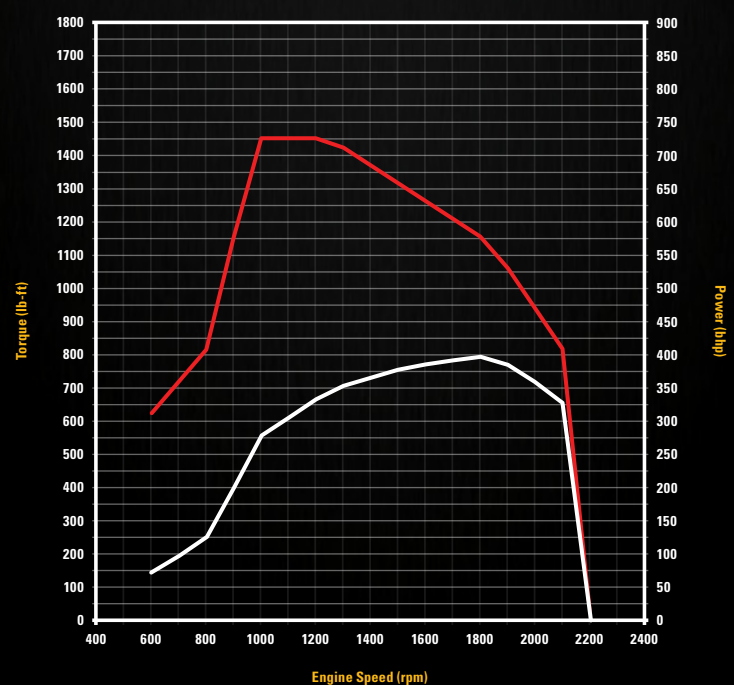
**Cat CT13 – 410 bhp @ 1700 rpm** — Torque — Power



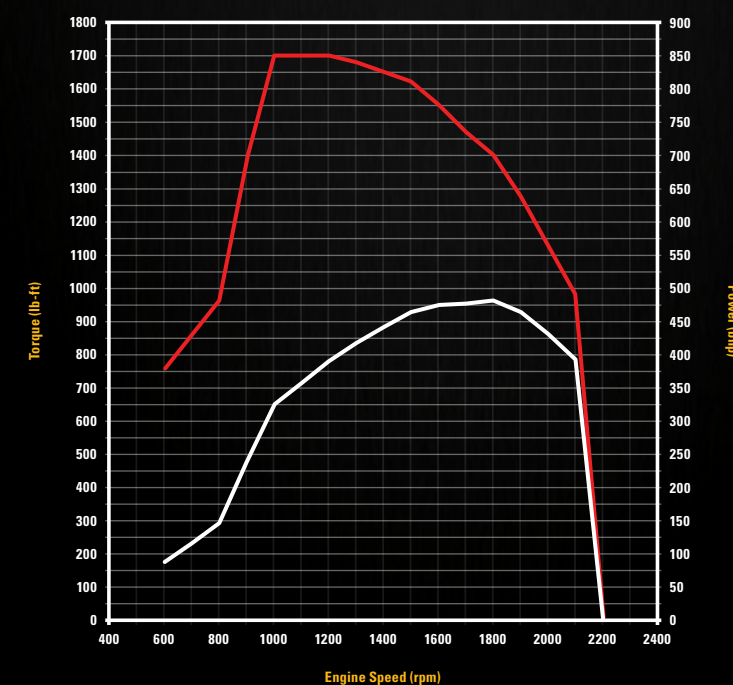
**Cat CT13 – 430 bhp @ 1700 rpm** — Torque — Power



**Cat CT13 – 390 bhp @ 1700 rpm** — Torque — Power



**Cat CT13 – 475 bhp @ 1700 rpm** — Torque — Power





# BUILT FOR THE WORK YOU DO.

**CAT VOCATIONAL TRUCK ENGINES** are backed exclusively by the unmatched support of the North American Cat Dealer Network, with more than 400 service locations and 2,300 service bays. Cat dealers are ready to work for you by leveraging their more than 40 years of industry-leading service support experience with on-highway engines.

So you can count on your Cat dealer for quality service, fast parts availability, unrivaled warranty coverage and more for your Cat Vocational Truck Engine.

- » **HIGHLY-TRAINED DEALER TECHNICIANS** are ready to quickly respond to all your engine repair needs, keeping you up and running to maximize your on-the-job productivity.
- » **24/7 ONLINE PARTS ORDERING**, combined with unmatched parts availability and timely delivery, mean you'll be up and running in no time.
- » **UNRIVALED WARRANTY AND EXTENDED SERVICE COVERAGE** for your Cat Vocational Engine delivers all the protection you need in one comprehensive package—with extended warranties and a variety of scheduled maintenance programs available.
- » **THE LARGEST NETWORK** of chassis dynamometers in North America ensures that your engine will deliver maximum performance throughout its life.



# HERE TO WORK.

**DESIGNED FOR UNPRECEDENTED UPTIME** and low cost of ownership in dozens of applications, Cat Vocational Truck Engines are backed by the best dealer network in the business.

These new engines deliver what no one else can—all the power, performance and durability you expect from a Cat Engine. They're heavy-duty redefined, and now they're here to work for you.

**BUILT FOR IT.™**



## FOR MORE INFORMATION

VISIT [DRIVECAT.COM](http://DRIVECAT.COM) OR TALK TO YOUR CAT DEALER TODAY TO LEARN MORE ABOUT THE LINE OF CAT CT SERIES VOCATIONAL TRUCK ENGINES. JOIN US ONLINE TO STAY UP-TO-DATE ON THE LATEST CAT TRUCK AND INDUSTRY NEWS.



CAT VOCATIONAL TRUCKS



@CAT\_TRUCK

