

# HERE TO WORK AS HARD AS YOU DO.

CAT® CT681 VOCATIONAL TRUCK







# READY TO WORK FOR YOU, RIGHT NOW.

**NEED TO CARRY MORE LOAD** to boost your productivity and profitability?

Looking to mount attachments with ease to increase your versatility and flexibility? Want to do it all in comfort and style? Look no further than the Cat® CT681 Vocational Truck.

This Class 8 set-forward axle model features a spacious and ergonomic cab, industrial styling, vocational-specific engine and transmission options, and bumper-to-bumper support across North America. Like the other models in our vocational truck family, it's a natural extension of the Cat product line—delivering all the power, performance and productivity you expect from Caterpillar.

Designed based on hundreds of hours of customer input, the CT681 is loaded with the features and options you need for today's demanding jobs and ready to work in a wide array of applications. Custom build one to your specifications today—and put it to work for your business right away.





# WHERE COMFORT MEETS PRODUCTIVITY.

**YOU WANT A TRUCK CAB** that combines the best of comfort and functionality—because a comfortable driver is a safe, productive driver. The CT681's spacious interior delivers. Ergonomic details reduce fatigue. Interior features enhance driver and jobsite safety and productivity. And the wide cab's distinctive look complements the exterior's industrial styling.

- » **MAXIMIZE SAFETY AND MINIMIZE FATIGUE** with our ergonomically designed dashboard and center stack.
- » **ENJOY A SMOOTH, QUIET RIDE** with our tuned cab air suspension system, premium grade sound insulation kit, and durable routing and clipping wire system.
- » **WORK IN COMFORT ALL SHIFT LONG** with our wide array of driver seat options, including the Cat Comfort Seat.
- » **FIND THE MOST COMFORTABLE DRIVING POSITION** with our leather-wrapped steering wheel that tilts and telescopes.
- » **ENHANCE YOUR VISIBILITY** with standard and convex cab mirrors combined in a single package.
- » **QUICKLY ACCESS PAPERWORK** log books and other important items with our easy-to-reach side compartments, back-panel storage and oversized side pockets.
- » **SAFELY ILLUMINATE** your exit, entry and work areas with overhead, under-dash and adjustable map lights that shine right where you need them.
- » **FIND JUST THE RIGHT TEMPERATURE** with easy-access HVAC controls and vents positioned for optimum air flow in a single package.





# ENGINEERED FOR THE TOUGHEST JOBS.

**HAULING HEAVY LOADS** or working in extreme conditions? You'll appreciate the CT681's rugged durability and industrial styling. We designed it to work hard and last for years, even on the toughest jobsites.

- » **EASILY MOUNT THE ATTACHMENTS** you need—including snow plows, hose reels, winches and hydraulic pumps—with our integral Front Frame Extension (FFE) option, and simplify mixer installation with vertical tie-in plates mounted behind the cab.
- » **GET AN UNCOMPROMISED VIEW** of the road with our curved, sloped, wraparound windshield in a one- or two-piece design.
- » **ENHANCE ALL-AROUND VISIBILITY** with our large, heated, cowl-mounted power mirrors that feature integrated turn signals.
- » **BOOST SAFETY ON THE ROAD** and jobsite with sealed-beam halogen headlights and LED park/turn lights.
- » **ENTER AND EXIT SAFELY** and easily with our generous door opening, three-point grab irons and skid-resistant steps.
- » **GET EASY ACCESS** to key service points like coolant, washer reservoirs and air filters—and quickly replace headlight bulbs and windshield wiper blades without any tools.
- » **ABOVE RAIL RADIATOR** enables the FFE design. Grill is directly attached to the radiator and the hood is able to open independently and accommodate front end components that sit in front of the hood.

## CHASSIS

- Set-forward axle, 114-inch bumper to back of cab (BBC)
- 12.25-inch rail size: 120,000 psi yield strength
- Above-rail radiator
- Integral Front Frame Extension (FFE) option

## AXLES

- Meritor & Dana options
- 6x4 truck configuration

## SUSPENSION

### FRONT

- Parabolic taper-leaf for a smoother ride
- Shock absorbers standard
- Optional two-stage, multi-leaf, shackle-type with shocks

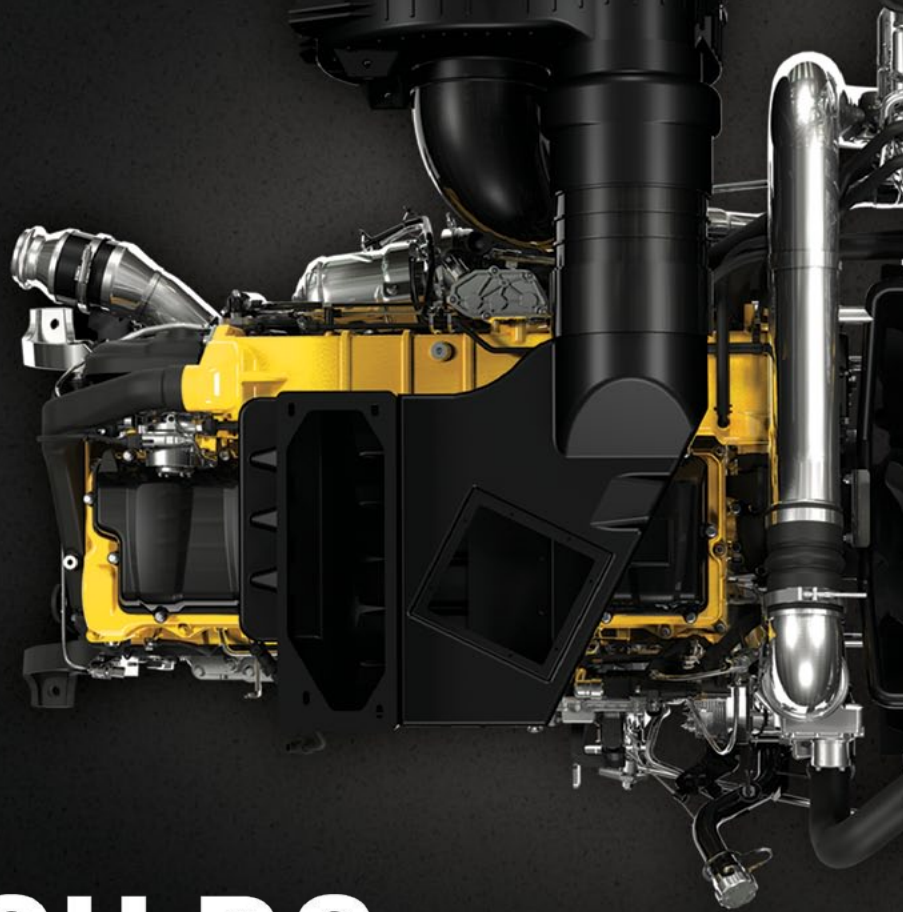
### REAR

- Hendrickson offerings: HMX, RT/RTE, RS, R & PriMaax
- Chalmers standard & high articulation
- Capacities from 40,000-85,000 lbs.

## FUEL TANKS

- 80-, 100- & 120-gallon capacities
- 9.5-gallon diesel exhaust fluid tank
- Single left or dual under cab/back of cab options





# POWER FOR THE WORK YOU DO.

**UNDER THE HOOD**, your CT681 is powered by a Cat CT Series Vocational Truck Engine with ratings from 365–430 bhp and 1,250–1,550 lb-ft of peak torque. Designed specifically for vocational applications, it features an ideal match of power and performance to tackle the toughest jobs.

» **DRIVE ENGINE POWER** to your attachments with our Front Engine Power Take-Off (FEPTO).

» **REDUCE GEAR SHIFTING** with our advanced air management system, which allows for fewer downshifts up steep grades.

» **ACHIEVE PRECISE INJECTION TIMING** and optimal combustion with our high-pressure, common-rail fuel system that features ideal injection pressures.

» **GET BROAD PEAK TORQUE** characteristics with our dual sequential turbochargers and high-pressure injection system.

» **EASILY ACCESS KEY SYSTEMS** and components from valve cover to oil filter to fuel filter.

» **MEET EMISSIONS STANDARDS** with our highly efficient Selective Catalytic Reduction (SCR) solution, featuring upgraded in-cylinder technology and proven aftertreatment system.

» **REDUCE DIAGNOSTIC AND MAINTENANCE TIME** with our single Electronic Control Module (ECM) and fewer electrical connections.

» **SAVE WEIGHT** up to 200 pounds compared to standard iron—with our compacted graphite iron block.

» **FLUID FREE HEAD GASKET** with no risk of coolant leaking into engine oil or exhaust gases into cooling system—reliability.

## CAT CT13 ENGINE SPECIFICATIONS

- Engine Type: Diesel, 4-cycle
- Configuration: Inline 6-cylinder
- Displacement: 12.4 L (758 cu. in.)
- Bore and Stroke: 4.96 inches & 6.54 inches (12.6 cm & 16.6 cm)
- Compression Ratio: 17:1
- Aspiration: Dual series turbochargers, intercooler & aftercooler
- Combustion System: Direct injection
- Lubrication System Capacity: 42 quarts (40 L)
- Coolant Drain Interval: 600,000 miles (965,606 km)
- Total Engine Weight (Dry): 2400 lbs. (1089 kg)
- Dimensions: L 59 inches x W 37 inches x H 49 inches (L 150 cm x W 94 cm x H 125 cm)
- Valves: 4 valves per cylinder, overhead cam actuated
- Horsepower: 365-430 hp (268-316 kW) @ 1700 rpm
- Peak Torque: 1250-1550 lb-ft (1695-2102 Nm) @ 1000 rpm

## CAT CT13 ENGINE PERFORMANCE DATA

Horsepower (bhp @ 1700 rpm)	Torque Peak (lb-ft @ 1000 rpm)	Gov. Speed (rpm)	Fully Developed Torque (lb-ft @ 800 rpm)
365	1250	2100	686
370	1350	2100	770
390	1450	2100	811
410	1450	2100	828
430	1550	2100	868





# THE CHOICE IS AUTOMATIC.

**WHEN YOU WANT TO MAXIMIZE** your CT681's uptime, fuel economy and productivity, choose the Cat CX31 Automatic Transmission. It's been used for years in vocational applications around the world—and it's performance-matched with your engine to deliver rugged durability, smooth shifting and optimum power. (Other options include a variety of manual transmissions and the Ultrashift® Plus Vocational Transmission built by Eaton.)

» **BOOST YOUR PRODUCTIVITY** with the industry's highest power-to-weight ratio, full power shifting and quick acceleration.

» **IMPROVE YOUR FUEL ECONOMY** with ideal speed and torque combinations.

» **FIND, TRAIN AND RETAIN** productive drivers with easy-to-learn and simple-to-operate automatic shifting.

» **ENHANCE JOBSITE SAFETY** as drivers no longer need to operate the clutch or remove their hands from the wheel.

» **IMPROVE PERFORMANCE AND SERVICEABILITY** with two side power take-off (PTO) locations and a Cat exclusive rear PTO.

» **REST EASY** with warranty and extended service coverage matched to your engine. Cat dealers know the CX31 inside and out because they've been supporting it in various on-highway applications since 2006.

## CAT CX31 AUTOMATIC TRANSMISSION SPECIFICATIONS

- Speeds: 6 forward/1 reverse
- Engine: Cat CT13
- Torque Converter: Cast aluminum design with lock-up clutch
- Clutches: Electro-hydraulic fully modulated, oil-cooled, multidisc
- Maximum Gross Input Power: 550 hp (410 Kw)
- Maximum Gross Input Torque: 1700 lb-ft (2400 N-m)
- Maximum Input Speed: 2500 rpm
- Length: 35.3 inches (896 mm)
- Electronic Interlock: Multiple capabilities to control power, speed, gear selection, direction & PTO operations
- Power Take-Off (PTO): Two side locations & Cat exclusive high output rear PTO
- Side PTO Capacity: 700 lb-ft (950 N-m), rotation same as engine, ratio determined by PTO adaptor
- Rear PTO Capacity: 1000 lb-ft (1356 N-m), rotation opposite of engine, at 1.25 engine speed
- Input Shaft Hydraulic Retarder: Optional
- Overall Weight (approx.): 906 lbs. (411 kg)
- Overall Weight with Retarder Option: 1088 lbs. (494 kg)
- Overall Length with Retarder Option: 39.4 inches (1000 mm)





# TIME TO WORK SMARTER.

**GETTING ACCURATE**, timely information about how, when and where your truck is being used can help you reduce costs, enhance performance and improve security. That's why the CT681 comes standard with Product Link™, our comprehensive asset and fleet management tool—and with our optional Vehicle Infotainment System and tire pressure monitoring system.

## PRODUCT LINK

- » Track fuel use and costs, location history, working versus idle time, preventive maintenance schedules, fluid analysis results and more.
- » Get odometer, engine hour and transmission PTO hour updates.
- » Set up site boundaries to detect movement outside an authorized area.
- » Receive fault code or suspicious movement alerts via email or text message.
- » Identify opportunities for driver training.
- » Use your smartphone to check status when you're on the go.

## VEHICLE INFOTAINMENT SYSTEM (VIS)

- » Use the navigation software to set truck-specific routing and account for bridge heights, size limits and more.
- » Log miles during a trip or leg of a trip—including distance, time and miles per gallon—and keep accurate records for billing and tax purposes.
- » Access Department of Transportation and recommended safety and vehicle inspection checklists or customize your own.
- » View vehicle parameters that need to be checked after specific mileage intervals.
- » Combine with the **Bendix Tire Pressure Monitoring System** to get fully customizable tire pressure status information (dealer install).





# SUPPORT THAT WORKS FOR YOU.

**YOUR CT681** comes with the best on-the-ground support team in the business.

Cat dealers have set the standard for service and support in the on-highway and heavy construction industries for generations—and vocational trucks are no exception.

- » **ORDER THE EXACT CT681** you need with your dealer's expertise on customized options ranging from transmissions to suspensions and axles.
- » **GET UP AND RUNNING FAST** with bumper-to-bumper service, 24/7 parts ordering, unmatched parts availability and timely delivery from your local dealer.
- » **EASILY LOCATE SERVICE AND PARTS** no matter where your work takes you with more than 400 Cat dealer service locations and 2,300 service bays in North America.
- » **SELECT THE RIGHT LEVEL OF PROTECTION** for your operation with unmatched warranty coverage, extended warranties and a variety of scheduled maintenance programs.
- » **CHOOSE FROM SIMPLE, AFFORDABLE FINANCING** leasing and insurance solutions available through Cat Financial.





**YOU DESERVE A VOCATIONAL TRUCK AS HEAVY-DUTY AS  
YOUR APPLICATION. WE'RE BUILT TO MEET THAT CHALLENGE.**

**VISIT [DRIVECAT.COM](http://DRIVECAT.COM) OR TALK TO YOUR CAT DEALER TODAY TO LEARN MORE  
ABOUT THE CT681 AND THE FULL LINE OF CAT VOCATIONAL TRUCKS. JOIN US ONLINE  
TO STAY UP-TO-DATE ON THE LATEST CAT TRUCK AND INDUSTRY NEWS.**

**BUILT FOR IT.™**



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