

# MAINTAINING YOUR NEXT GENERATION CAT® ENGINE

## BUILDING CUSTOMER VALUE

WITH DECADES OF DIESEL ENGINE INNOVATION AND EXPERTISE BEHIND US, CATERPILLAR TAKES ANOTHER CRITICAL STEP INTO THE FUTURE WITH CAT® U.S. EPA TIER 4 FINAL/EU STAGE IV TECHNOLOGIES. SUCCESSFUL BUSINESSES KNOW THEY MUST MEET CUSTOMER EXPECTATIONS TODAY AND INTO THE FUTURE. CATERPILLAR PROVIDES MORE POWER, BETTER FUEL ECONOMY, WHILE MEETING TIER 4 FINAL EMISSIONS STANDARDS AND FOCUSING ON MINIMIZING CUSTOMER MAINTENANCE COSTS.



# WE THINK GENERATIONS AHEAD...

## Committed to Customer Success

- **IMPROVED FLUID EFFICIENCY**  
Up to 5% net improvement over Tier 4 Interim (including DEF consumption)
- **POWER AND PERFORMANCE**  
Integrated design boosts power and performance across applications
- **RELIABILITY** through commonality and simplicity of design
- **MAXIMIZED UPTIME AND REDUCED COST** with world-class support from the Cat dealer network
- **LONG LIFE**  
Cat durability and long life to overhaul
- **MINIMIZED IMPACT** of Emission System service and maintenance: maintenance points are grouped at 5,000 hours to minimize downtime
- **DELIVERING MORE** power, better fuel economy and minimizing your maintenance costs, while meeting emissions requirements



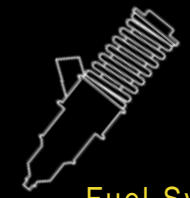
Caterpillar equips every Tier 4 Final/Stage IV engine with state-of-the-art technology--an ideal combination of electronic, fuel, air and aftertreatment components, based on engine size, the type of application and the geographic location in which it will work. Applying technologies systematically and strategically optimizes them to meet our customers' high expectations for productivity, fuel efficiency, reliability and service life.



## CAT® 9L-18L ACERT™ Engines

	Tier 3	Tier 4 Interim/ Stage III B	Tier 4 Final/ Stage IV
<b>Max Fuel Sulfur Content</b> (in Parts per Million)	500	15/10	15/10
<b>Diesel Exhaust Fluid (DEF)</b>	Not Required	Not Required	Required (ISO 22241)
<b>BioDiesel</b>	B20	B20	B20
<b>Fluid Consumption</b>	Base	Up to 5% fuel efficiency improvement	Up to 5% net improvement over Tier 4 Interim (including DEF consumption)
<b>Engine Oil</b>	ECF-2 (CI-4)	ECF-3 (CJ-4)	ECF-3 (CJ-4)
<b>Drain/Filter Intervals</b>	500 hrs	500 hrs	500 hrs
<b>Valve Lash</b>	500 and 2,500 hrs	2,500 hrs	2,500 hrs
<b>DPF Ash Service</b>	N/A	5,000 hrs	5,000 hrs
<b>OCV Filter Replacement</b>	N/A	2,000 hrs*	N/A
<b>CRS Spark Plug Interval</b>	N/A	5,000 hrs	5,000 hrs
<b>DEF Filter Replacement</b>	N/A	N/A	5,000 hrs
<b>Overhaul Life</b>	Base	Same	Same

\* If Equipped



### Fuel Systems

-High Pressure Common Rail Fuel Systems with full electronic injection improve precision and control that boosts performance and reduces particulate matter for the C9.3 ACERT.

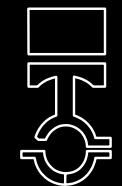
-Advanced MEUI-C injector platforms handle increased injection pressures and more precise fuel rates. These durable injectors enhance responsiveness while controlling particulate matter in the C13, C15, and C18 ACERT engines.



### Engine Electronics

-Increased features and connection commonality improve the customer experience and increase quality and reliability.

-Over Foam wiring harness adds to reliability even in the most demanding applications.



### Emissions Reduction

-Durable packaged systems designed to withstand even the most demanding applications

-Fuel-efficient, reliable regeneration Operates automatically