



# The CPP Connection

January 2015 Newsletter

## Understand New Final Tier 4 Standards

Since 2006, Environment Canada increased the regulations by implementing a diesel emission program to restrict the nitrogen oxide (NOx), carbon monoxide (CO), particulate matter (PM), and non-methane hydrocarbons (NMHC) emissions from diesel exhaust. This program reduced emissions by implementing a series of Tiers that have had increasingly stringent requirements over time. By the end of 2018, all engines will be required to adhere to these final Tier 4 regulations to meet the 99% reduction. For more details on this upcoming requirement, please see the Environment Canada website, <http://ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=5C98F8FB-1>. In the United States, the requirement is that engines adhere to Final Tier 4 standards, starting 2015. (Note, there are exceptions to this. For full details on these federal requirements, see the US Government publishing office, electronic code or federal regulations, EPA, Title 40 Protection Of Environment, [http://www.ecfr.gov/cgi-bin/text-idx?SID=025fe345de0f8a2006d73126b427e656&node=se40.33.1039\\_1101&rgn=div8](http://www.ecfr.gov/cgi-bin/text-idx?SID=025fe345de0f8a2006d73126b427e656&node=se40.33.1039_1101&rgn=div8)).

Environment Canada states that the 99% reduction in NOx emissions on off-highway diesel vehicle will reduce Canada's impact on greenhouse gases. What is the present impact to end users and purchasers of new equipment?

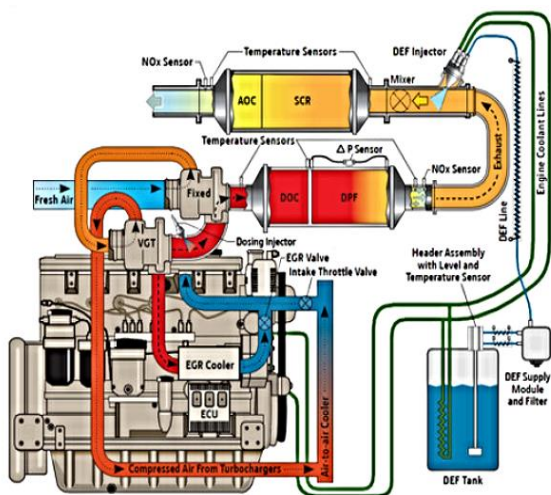
What is the present economic impact for this greener tomorrow? These new implementations will be costing you more green today. The cost of a diesel engine has jumped roughly 30-40% from iT4 to Final Tier 4, and even more from Tier 3 to Final Tier 4.

So what extras am I paying for? In order to comply with these stringent EPA standards, engine manufacturers have had to do a range of things to the engines.

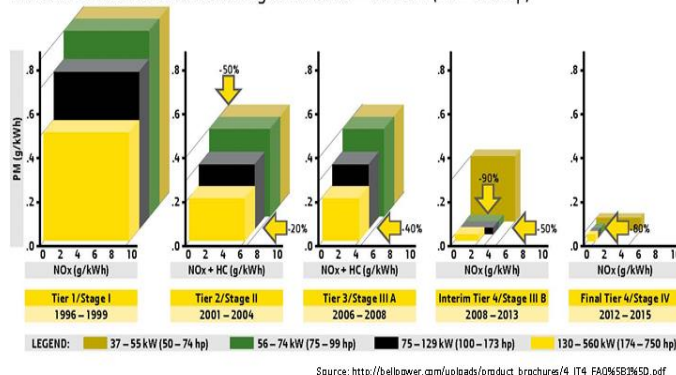
- More Precision Injection Timing: manufacturers have switched to electrically controlled injector solenoids that are more efficient.
- High-Pressure Common-Rail Fuel Injection: this assists to improve the combustion by helping it burn more completely and at a faster rate.
- Advanced Turbocharging: The turbo charger automatically compensate for changes in engine speed, resulting in higher thermal efficiency and, thus, produces more power than conventional turbo chargers, without increasing the emissions.
- Horse Power Optimization: new sensors and electronic engine controls have been added to monitor the engine's performance so it is able to optimize the efficiency.
- After Treatment of the Exhaust: manufacturers have done this in multiple ways; some using diesel exhaust fluid, filters, and recirculation. The fluid converts the NOx to nitrogen and water, the filter catches the TM, and the recirculation heats the exhaust to automatically clean the filter.

We do still have availability of Tier 3 equipment that we can sell so if you are thinking about purchasing new pumps contact us about it before they are all gone.

If we can assist you with your Dive, Pump, Barge, or Dredge needs, email us any time at [sales@canadapumpandpower.com](mailto:sales@canadapumpandpower.com) or call us at 1-877-898-3494. You can check out our line of pumps and other industrial marine equipment at [www.mightypumps.com](http://www.mightypumps.com).



EPA and EU nonroad emissions regulations: 37 – 560 kW (50 – 750 hp)





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Industrial Strength

MIGHTY PUMPS

DIVE • PUMP • BARGE • DREDGE

CANADA PUMP & POWER

Equipment Type	Quantity Available	Description
<b>Trash Pumps (Diesel, Hydraulic, Electric)</b>		
<b>Dewatering Trash (DT)</b>	71 Available	<ul style="list-style-type: none"> <li>• 18" DT18, up to 17,300 gpm or up to 240' of head</li> <li>• 12" DT12, up to 6,100 gpm or up to 200' of head</li> <li>• 8" DT8, up to 4,500 gpm or up to 230' of head</li> <li>• 6" DT6, up to 2,800 gpm or up to 150' of head</li> <li>• 4" DT4, up to 1,450 gpm or up to 150' of head</li> </ul>
<b>High Head Trash (HT)</b>	40 Available	<ul style="list-style-type: none"> <li>• 14" HT14, up to 10,500 gpm or up to 360' of head</li> <li>• 12" HT12, up to 5,100 gpm or up to 360' of head</li> <li>• 10" HT10, up to 4,500 gpm or up to 350' of head</li> <li>• 8" HT8, up to 3,130 gpm or up to 300' of head</li> <li>• 6" HT6, up to 1,540 gpm or up to 390' of head</li> </ul>
<b>High Head Water (HW)</b>	7 Available	<ul style="list-style-type: none"> <li>• 8" HW8, up to 3,970 gpm or up to 660' of head</li> <li>• 6" HW6, up to 1,660 gpm or up to 670' of head</li> <li>• 4" HW4, up to 770 gpm or up to 710' of head</li> </ul>
<b>Hydraulic (HY)</b>	31 Available	<ul style="list-style-type: none"> <li>• 8" HY8, up to 4,500 gpm or up to 230' of head</li> <li>• 6" HY6, up to 2,800 gpm or up to 150' of head</li> <li>• 4" HY4, up to 1,450 gpm or up to 150' of head</li> </ul>
<b>Submersible Electric</b>	87 Available	<ul style="list-style-type: none"> <li>• 1 HP to 150 HP, High-Chrome, Stainless Steel:               <ul style="list-style-type: none"> <li>○ Trash Pumps</li> <li>○ Slurry Pumps</li> <li>○ Chopper Pumps</li> </ul> </li> </ul>
<b>Generators/Light Towers</b>	31 Available	<ul style="list-style-type: none"> <li>• 20KW Light Towers</li> <li>• 25KW, 50 KW, 70KW, &amp; 125KW Generators</li> </ul>
<b>Barges</b>	31 Available	<ul style="list-style-type: none"> <li>• Modular Barge Units</li> <li>• Floating Intake Barge</li> </ul>
<b>Dredges</b>	4 Available	<ul style="list-style-type: none"> <li>• LWT Pit Hog Remote and Swing Ladder Dredges</li> <li>• Hydraulic Tiller Dredges</li> </ul>
<b>Diving Systems</b>	1 Available	<ul style="list-style-type: none"> <li>• Fresh Water, Potable Water and Contaminated Water Entry Systems</li> </ul>
<b>Heavy Equipment</b>	19 Available	<ul style="list-style-type: none"> <li>• Skyline Excavator, Draglines, Loaders, Dozers, Backhoes, and Vacuum Loaders</li> </ul>
<b>Trucks</b>	58 Available	<ul style="list-style-type: none"> <li>• Tandem &amp; Tridem Gravel Trucks, Wet Material Handling Trucks, Haul Trucks and Service Trucks, Mechanic Trucks</li> </ul>
<b>Support Equipment</b>	In Stock	<ul style="list-style-type: none"> <li>• Pipe, Hose, Fittings, Light Plants, Fluid Road Crossings, Fusion Machines, and Dive Equipment</li> </ul>