Avoiding Diesel Engine Failure
A Proactive Approach to Avoid Unnecessary Engine Overhaul

CLAIMS:
Method comprising:
• Establishing an exhaust temperature minimum set point
• Monitoring exhaust temperature of an engine
• Restricting air intake into the engine when the temperature is below the set point

OVERVIEW:
When a diesel engine and diesel generator are operated for extended periods at idle, the engine does not operate at its optimum in-cylinder temperature. This causes the performance of the engine to deteriorate because unburned diesel (hydrocarbons) accumulates on the exhaust filter, injectors, and piston rings.

If no action is taken, such as increasing the load to raise the temperature and burn the unburned hydrocarbons, the engine will ultimately fail and a major overhaul will be required. This issue is commonly known as wetsacking. Our technology remedies this situation.

NOVELTY:
• Increases the in-cylinder reaction temperature using automated controls while restricting the flow of intake air

ADVANTAGES:
• Longer engine life
• Reduced need for maintenance

APPLICATIONS:
• Can be applied to all diesel internal combustion engines, including generators, trucks, heavy equipment, locomotives, and boats

Figure 1 - Comparison of an engine with and without wetstacking control system

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