

VTBNet – Practical approach to the Vibration & Temperature Monitoring of Gen Sets

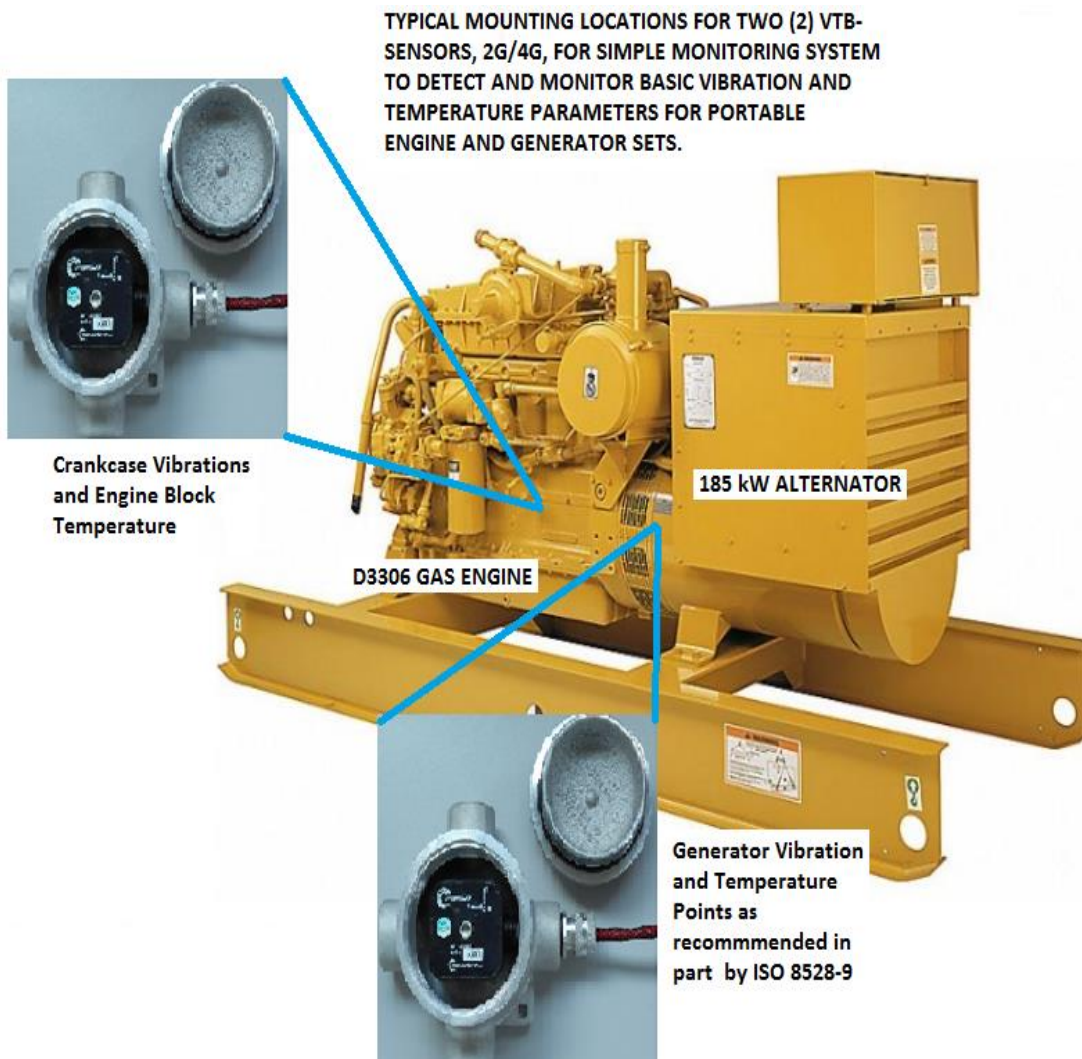
Typical Gas Engine & Generator used for Industrial Applications



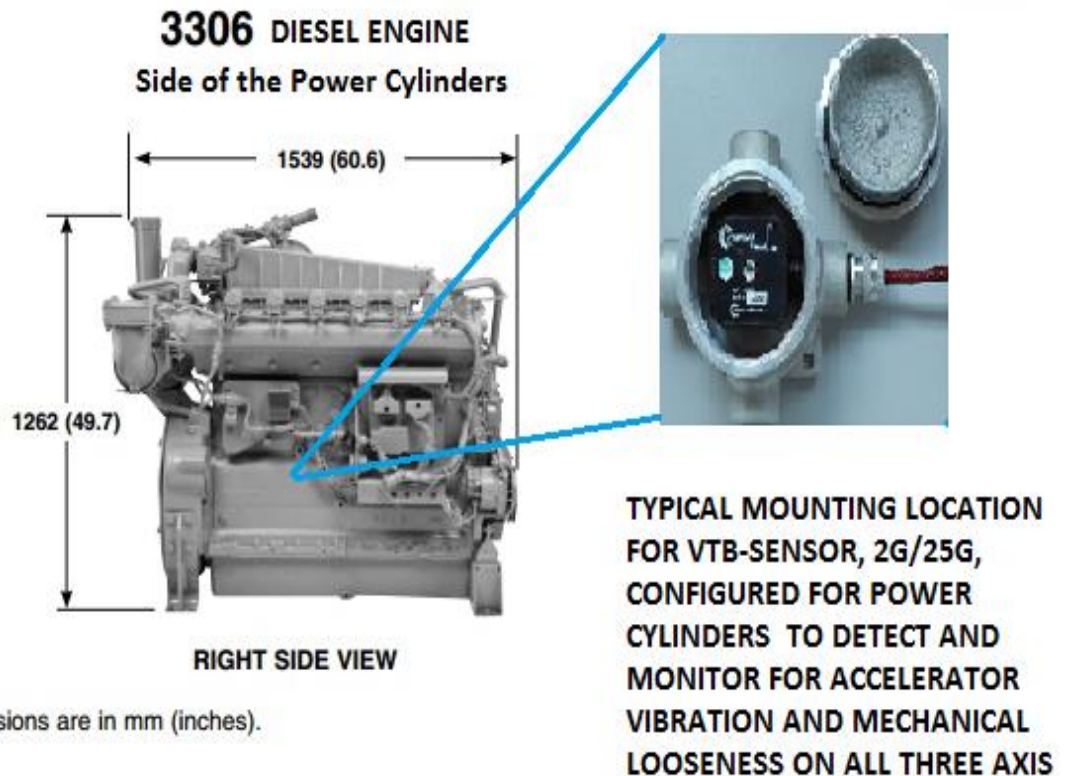
The VTB-Sensor (2g/4g) can be mounted on the engine block and center lined to machine casing. The VTB-Sensors configured for vibration can be mounted on engine block for engine block vibration and crankcase vibration at 1X to 10X of machine running speed (ips,rms). An enhanced VTB-Sensor (2g/25g) can be used instead and mounted on the engine frame to detect stage 3 or 4 bearing faults. A VTB-Sensor (2g/25g) configured for impacts can be mounted as close as possible to the power cylinders to detect and monitor for impact severity.

Mounting locations are based on the engine type, actual sensor mounting space, and the room required for explosion enclosures if they are required. Another mounting consideration is heat. It is essential to take engine block temperature readings while the machine is running to avoid elevated exhaust manifold temperatures. The best cable protector for this application is the spiraled armor cable or equivalent.

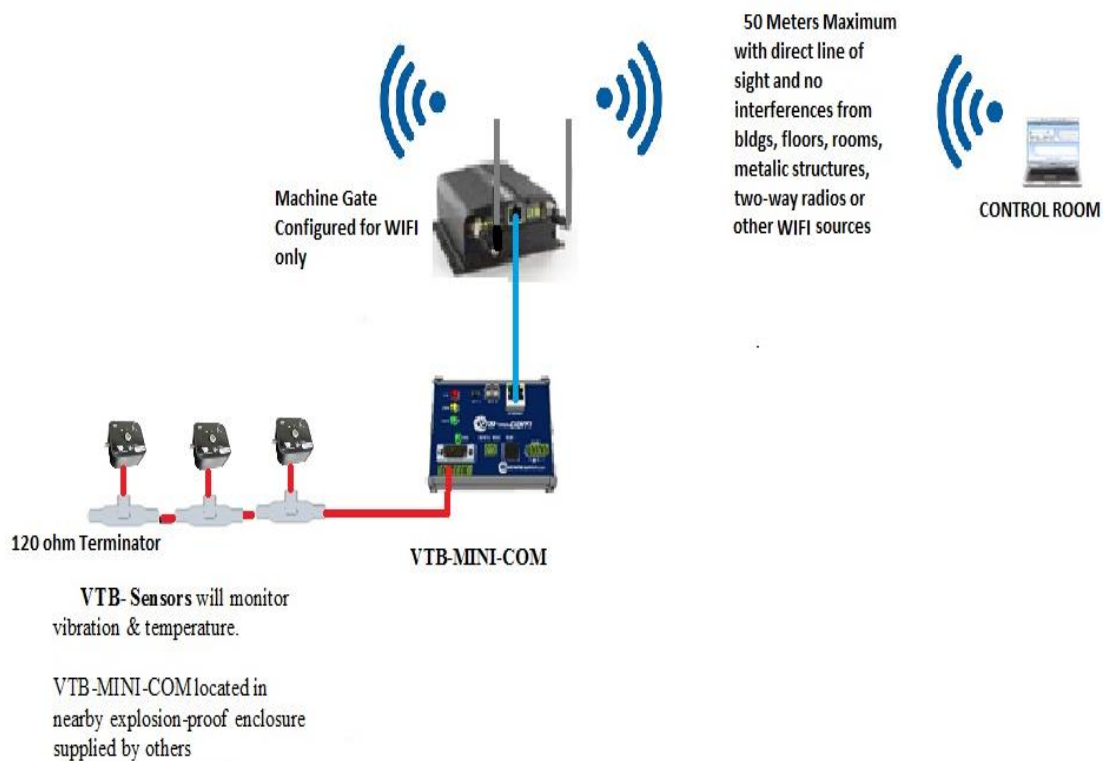
Applications – Mounting of VTB-Sensors – Option 1, VTB-Sensors configured for 2g/4g, crankcase vibration, alternator vibrations, stage 4 bearing faults, and temperature



Option 2, similar to Option 1 except the two (2) VTB-Sensors on the engine block and generator above are configured for 2g/25g to detect and monitor for stage 3 and 4 bearings faults. This option also has one (1) VTB-Sensor, 2g/25g configured for power cylinder impacts or mechanical looseness.



VTB-miniCom and VTB-Sensor (WiFi) Application



Conclusion

This technical brief has practical suggestions to assist you in monitoring your gen sets. We want to support you with our proven product that can successfully and consistently detect, monitor, analyze, and protect your diesel engine investment. Let us know about your application by consulting with the Machine Saver team at service@machinesaver.net. Our team can provide vibration monitoring solutions and benefits for your present application and extend their vibration expertise and new technology to your entire balance of plant. Product and application information is available at www.machinesaver.com