



**KUBOTA ENGINE AMERICA CORPORATION**

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# SERVICE INFORMATION

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SUBJECT: GL-Series Generator Operation at High Elevations.

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**TITLE: GL-Series Generator Operation at High Elevations.**

**Background:** Customers may experience degraded engine and generator performance, with symptoms of rough idle, excessive smoke, and/or abnormal exhaust odors when operating in elevations near or above 1,524 meters (~5,000 feet).

These symptoms occur naturally due to environmental constraints on the air/fuel ratio with respect to changes in altitude/atmospheric pressure, relative humidity and ambient temperatures. These symptoms are considered normal by regulated emissions controlling devices.

All selling locations are required to inform potential Customers of engine and generator performance degradations due to these environmental constraints prior to taking possession of a GL-Series Generator. Repairs and/or modifications made to overcome these symptoms are not warrantable and will void all related Kubota warranties.

This bulletin is intended to support existing Kubota Engine Application Manual deration of engine output on mechanical diesel engines used with GL-Series Generators, available on the Kubota integrated Service System (K-iSS) website.

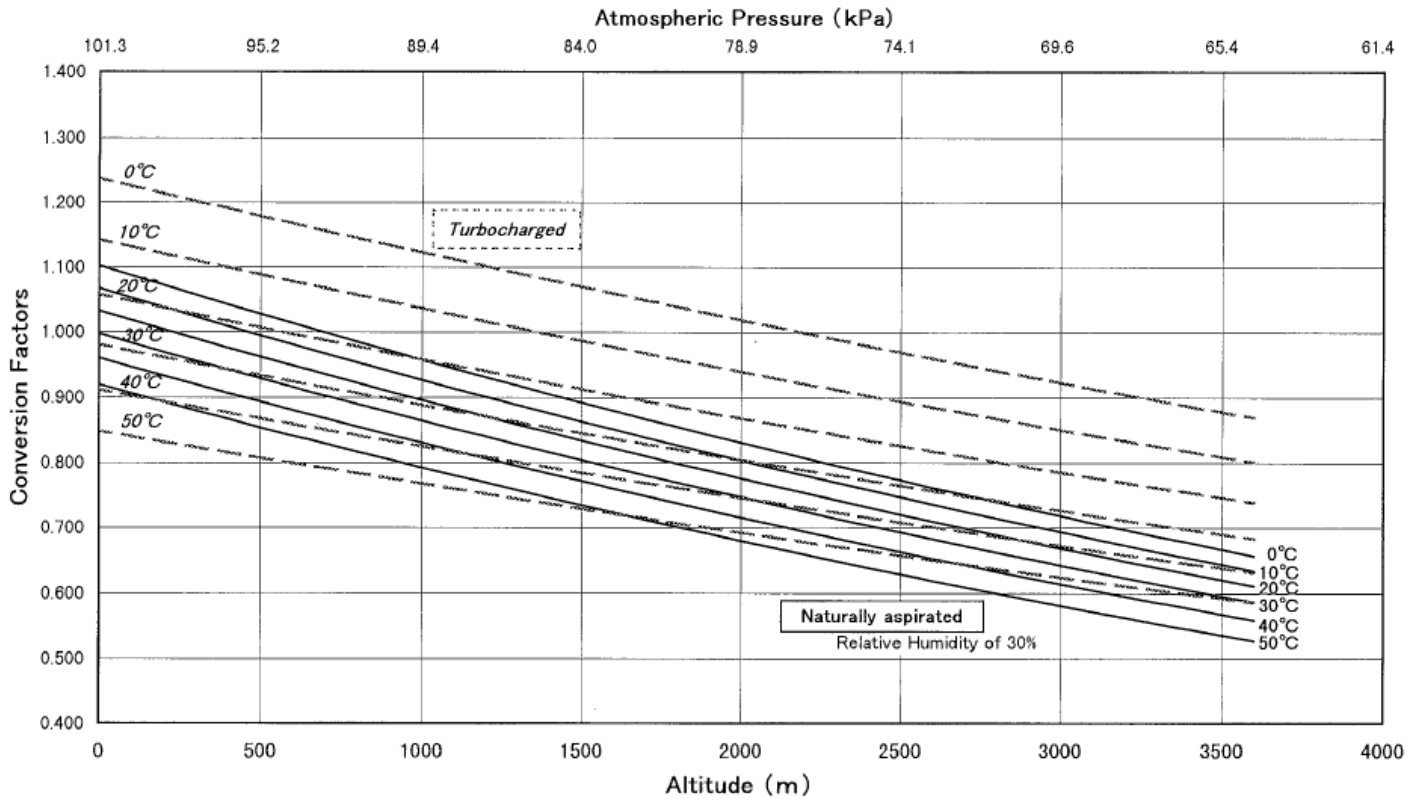
As a general rule, Customers should expect approximately 0.5% deration of engine power output with each 5°C temperature increase above 25°C, and approximately 1.5% deration of engine power output with each 100-meter altitude increase above sea-level on naturally aspirated engines (slightly less for turbocharged engine models).

**Kubota Application Manual excerpt:**

Engine output performance varies with their operating and ambient conditions to altitude/atmospheric pressure, relative humidity and ambient temperatures. If the ambient temperature varies largely, or the engine is operated at an unusual installation altitude, engine performance is directly influenced. An engine should be selected with sufficient power to meet the load demands under all operating conditions defined by the Customer. Deration coefficient tables are available for reference when selecting the proper engine model. (see below.)

# Conversion Factors of Output

Mechanical Efficiency 85%



When selecting a generator based on the Customer's intended requirements, please consider a typical generator ideally operates at 80% of its capacity for continuous usage. Only in a temporary and an emergency situation should a generator operate at or near 100% of its output for a limited period of time. Contingent on the Customer's intended operating conditions, KEA may recommend against a GL-Series Generator for the Customer's need. Please consult the selling generator Dealer for specifics.

If any questions or concerns, please contact the KEA Service Engineering Department at:  
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