



# ALL

## SERVICE BULLETIN

TOPIC: Miscellaneous  
IDENT NO: 16-2864  
SUPERSEDES: NEW  
DATE: July 15, 2001

**SUBJECT:** Procedures For Light Load Operation

**MODELS AFFECTED:** All

*NOTE: The information provided in this Service Bulletin was previously provided in Service Bulletin No. 16-2753. Service Bulletin No. 16-2753 is obsolete.*

This Service Bulletin is being released to advise the field of the following recommendations for special operation and maintenance procedures when operating Waukesha™ Natural Gas Engines at light loads or no loads for extended periods of time.

Light load operation is typically defined as power levels less than 50% of the maximum continuous power rating.

Gas engines usually have unstable combustion at light loads because combustion chamber pressures are lower which increases blow-by past the piston rings. This can lead to contamination of the engine oil including an increase in oil nitration rates and carboning of the piston ring grooves. Oil analysis is recommended to determine proper oil change intervals. Refer to Service Bulletin No. 12-1880Y (or latest revision), for Waukesha Lube Oil Recommendations. Change intervals are usually not affected by periodic light loading.

If the engine is operated at less than 30% load for long periods (> 300 hours), it is recommended that the engine be exercised at full load for 2 hours every 400 hours.

Single electrode iridium platinum spark plugs are recommended by Waukesha Engine and are available

from Waukesha Engine Distributors. Refer to Service Bulletin No. 11-1895G (or latest revision) for spark plug recommendations for all Waukesha production engines. These spark plugs have superior corrosion resistance and will significantly improve the engine stability at part and full load operation compared to the multi-electrode spark plugs.

Engine oil and coolant temperatures should be maintained within the standard operating ranges. Always check thermostats for proper operation. General guidelines are as follows:

- Maintain the engine jacket water outlet coolant in the standard range of 180° F to 190° F (82° C to 89° C).
- Oil header temperature should be above 160° F (71° C) to assure proper lubrication of the engine and minimize oil nitration rates.

Refer to "General Data" Technical Data Book, under Control Systems see Number S8382 "Alarm And Shutdown Setpoints" and in the Fuels And Lubrication Section, Number S1015-27 "Waukesha Lube Oil Recommendations."

The crankcase breather system should be checked for proper operation, which will ensure that blow-by gases are properly vented from the crankcase. The breather system should be adjusted to operate at a slight vacuum. Check the engine's Operation And Maintenance Manual for specifications.