

## SAFE OPERATION OF DUAL FUEL ENGINES

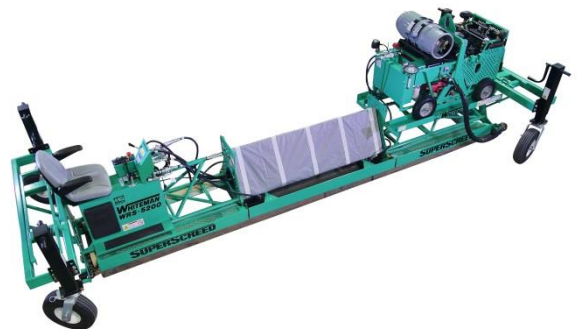
In recent years engine manufacturers have been challenged to meet increasingly stricter government emissions requirements. This has affected both cost and availability of gasoline and diesel engines as manufacturers either eliminate models due to an inability to meet emissions targets, or decide to leave the market altogether. As a result OEM's are looking for ways to power construction equipment.



**Dual Fuel Engines**, designed to run on either gasoline or LPG fuels, are increasingly being specified on equipment that formerly utilized diesel or straight gasoline power sources.

These engines are popular for the flexibility they provide contractors for indoor applications. While gasoline engines should never be run indoors, LPG burns cleaner than gasoline, so it is commonly used for indoors. However, LPG is not without its risks. ***Excessive inhalation of propane exhaust can be harmful or fatal to the operator or bystanders if the work area is not well ventilated. While operating engines indoors or restricted area, provisions should be evaluated to provide for air recovery and exhaust.***

Some engines use catalytic converters for after treatment of exhaust gases. These components are part of the engine design and specified in to meet emissions requirements. However, the presence of a catalyst does not make it safer to run gasoline powered equipment in a confined area. It is the responsibility of the contractor to ensure work area has proper ventilation.



As with all engines, tampering with or modifying an engine – including the catalytic convertor – not permitted. In addition to voiding the warranty, individuals or companies found to have modified an engine may be subject to government fines.