

Things to Consider

Generator Drive Engines

Ambient Conditions

What will be the highest and lowest temperatures at which the engine will be expected to function? What will the maximum altitude be? Will it operate in dusty conditions? This will affect the air cleaner and pre-cleaner selection and may affect the fin spacing on the cooling radiator.

Cooling Method

Most land based engines dissipate their heat through a conventional radiator and fan system but marine generator drive engines are often heat exchanger or keel cooled. Thought should be given to radiant heat and noise.

Enclosure Requirement

If the engine will be housed in an enclosure you may want to think about the possibility of the enclosure being affected by ice buildup or other weather related concerns. Service access will normally be looked after by the supplier but deserves consideration. Is sound attenuation required?

Portability

In some applications, such as rental power, portability is a concern. Fuel storage requirements and the ability to withstand road shocks need to be considered.

Engine Size

The end use of the machine will determine what engine best suits the job. As a rule, the larger the displacement, the slower the speed (rpm) the longer the life. However, a large displacement, slow speed engine is not the right engine for a rental application. There is too much mass and usually the costs are prohibitive. So thought needs to be given to what the set will do over its intended lifetime. If you want to move it on site and leave it running for many years, you will select a different engine than someone looking for a generator set that can be readily moved in a pickup truck.

Sizing the engine properly is extremely important both for operating efficiency and for longevity. An engine operating with a light load cannot be efficient. In fact, light loads for extended time periods can cause serious damage to the engine.

