

[Underload, Underutilised: Why you Must Use Full Power of your Diesel Generator]

Here at CPS, we offer bespoke power solutions manufactured right here in the UK to ensure you're getting exactly what you need from your generator. When deciding on the genset that's right for you, it can be easy to get confused, hence why we've supplied a vast array of guides to help you pick the right generator for your needs through our articles. Frustration is the mother of many mistakes and blindly picking the generator with the highest kVa is an innocuous, but potentially costly, mistake.

In this post, we'll inform you of the disadvantages of running a generator underload, and help you understand why you need a generator with the right kVa for your needs.

What is 'Underloading'

Underloading your generator is the practice of running your generator with a lighter load than it's designed for. The 'load' of your Diesel generator is the power being consumed from the generator. The ideal load of your generator is measured in kVa. For advice on finding the ideal generator kVa for you, read our article on the subject or contact our expert team today. If you've worked with Diesel generators in the past, many experts use the colloquial term "Wetstacking" to refer to underloading.

Why should you not underload?

Underloading can cause serious damage to a Diesel generator, and the minor wear and tear it creates will quickly accumulate if left unchecked. When underloaded, a Diesel generator has to work much harder to reach its operating temperature. This will not only strain your glowplug, but the Diesel engine. Underloading creates low cylinder pressure, making your Diesel genset work that much harder to remain efficient and causing the build-up of soot that can quickly clog your cylinders. These issues combined will quickly grind your generator to a halt.

By far the most serious and frighteningly common issue that can arise from running your Diesel generator underload is glazing. Glazing occurs when operating temperatures are not met by the generator due to underloading. The unburnt fuel creates a thick, syrup-like substance that slowly clogs your piston rings. The clogging ruins the seal created by the piston rings, allowing the exhaust gasses from combustion to slip past the piston rings of your generator. The hot gasses flash bake the substance, creating a hard, ceramic-like coating that will quickly decimate your Diesel generator.

How to avoid Underloading

The easiest way to avoid underloading is to ensure you're purchasing a generator with the right kVa. If you already have a generator and are running it underload, try to keep your generator operating at 70-100%. This is the sweet-spot for a majority of Diesel generators. You may require a load bank to help reach this spot. Beyond this, frequent servicing, maintenance and tests can help mitigate the effects of underloading.

Of course, with the help of our expert team here at CPS, you can rest assured knowing you picked the generator perfect for your needs. All of our bespoke power solutions are designed to ensure you're operating at a load perfect for both the needs of you and your generator. For quality UK-manufactured Diesel generators available worldwide, backed by the support of our expert team – contact CPS today.