## **Bowers Group Case Study**

# **Hack Engineering**





### **APPLICATION BACKGROUND**

Based in Barcombe, East Sussex, Hack Engineering originated as a supplier of high-end performance parts for BMW, before undertaking exponential growth of the business that led to the opening of its first workshop, engine building facilities, part supply operations, and the creation of its own-branded machine shop.

Founded in 2013 by Ben Koflach, the business aim of Hack Engineering was to offer knowledgeable, reliable parts supplies in the UK. With vast experience working in the historic motorsport industry, Ben invested his skills forward into opening the first Hack Engineering workshop in 2016, increasing stockholding offering Vanos rebuilds and other engine work for BMW M cars.

Technical Director, Alex Lester, joined as a business partner in 2018, bringing with him a wealth of machining and engine reconditioning knowledge, forming the basis of Hack Engineering Machine Shop. By moving machine work in-house, engine-building became ever more prominent in the company's offering, and it has continued to rapidly grow ever since.

#### THE CHALLENGE

Accurate measurement of engine components is critical to a quality engine build. When parts are machined or ordered incorrectly, it can have an adverse effect on both the performance and longevity of the engine, often resulting in a rebuild process that can hamper the profitability of the project.

It is important to ensure that accuracy, precision and resolution is achieved throughout all aspects of the build, something that can be enhanced by choosing the correct, high quality tools.



#### **THE SOLUTION**

With an ethos of being "run for enthusiasts, by enthusiasts", Hack Engineering has strengthened its precision measurement accuracy by investing in a large selection of Moore & Wright tools from Bowers Group.

The Moore & Wright tool portfolio is used on a daily basis throughout the business, whether in the engine build room measuring cylinder bores, in the machine shop measuring interference fit on valve guides or checking valve shim dimensions in the workshop. The ensured quality of the tools has allowed Hack Engineering to be confident in the accuracy of the work it carries out.

Research and development have been key to the Moore & Wright brand as it strives to continue the legacy started by Frank Moore. Over 200 products within its range of workshop tools complement many businesses and industries, offering highly precise measurements in an array of applications. With more than 100 years of experience in designing, manufacturing, and supplying measuring equipment, it is committed to offering the best service to customers across the globe.

The Machine Shop now caters for all machining requirements, both within the performance and simple reconditioning world. Its workshop covers a variety of day-to-day processes, such as full cylinder head overhauls, valve grinding and block boring and honing.

With a dedicated engine building room on-site, all of the specialist tooling required is readily available, and has led the team at Hack Engineering to build many successful engines for fast road, forced induction, race and rally use.

As a big advocate of the quality of Moore & Wright products, Hack Engineering has recently added to its outfit with a special 3D printing and design studio, with a plethora of tools available to all staff throughout the business.

#### COMMENT

Alex Lester, Technical Director at Hack Engineering said: "When trying to find those last few horsepower, precision is always going to be your friend. Availability and accuracy have always been important buying decisions when we are looking for new tooling. By using Moore & Wright, it has allowed us to have faith in every measuring process.

Head into the engine building department and you will see many Moore & Wright tools, some even dating back well into the early years of the last century," Alex explained. "As with all engine building processes, having the correct tools is absolutely critical."

