

POWER PROFILE: VMAC GLOBAL TECHNOLOGY INC.

PARTNERING TO CREATE A CAT® POWERED 6-IN-1 MULTI-POWER SYSTEM



LOCATION:

Nanaimo, British Columbia, Canada

SCOPE OF ENGINE USE:

Cat® C1.1

EU Stage V / U.S. EPA Tier 4 Final

CAT DEALER:

Finning

www.VMACAIR.com

IMPROVING AN EXISTING PRODUCT WITH AN ENGINE MODIFICATION

VMAC (an acronym for Vehicle Mounted Air Compressors) designs, engineers and manufactures innovative mobile air compressors and multifunction power systems. The ISO 9001-certified company is a leader in the air compressor industry and is committed to continuous improvement and customer satisfaction.

In 2016, Cat dealer Finning approached VMAC with a special request: Finning wanted the manufacturer to modify its 6-in-1 multifunction power system to use a Cat engine. VMAC's multi-power system includes a rotary screw air compressor, generator, welder, battery booster/charger and PTO with optional hydraulic pump. "The existing power system was already popular with Finning mechanics who used it to service heavy equipment for customers. However, Finning mechanics naturally are more familiar and comfortable with Cat engines and prefer those over competing engines," says Mike Pettigrew, VMAC's Marketing Manager. "That's what led to this new request."

The two organizations had a long history of collaborating together. "Finning has been one of our most valued and trusted partners over the past two decades. Their needs have heavily influenced our R&D priorities and product demands," Pettigrew states. "We enjoy working with Finning to develop innovative air compressor products that meet their

POWER PROFILE: VMAC GLOBAL TECHNOLOGY INC.

service mechanics' evolving needs. Also, people in our industry follow what Caterpillar is doing. We know that when Caterpillar or a Cat dealer is asking for something, others are likely to start asking for it, too."

Finning connected VMAC with Caterpillar's engineering team to jumpstart the exploratory process. The Cat dealer also facilitated an application review of the VMAC multifunction design to ensure that Cat engine operating specifications were met.

After the review was complete, Caterpillar provided engine recommendations. Ultimately, the Cat C1.1 Industrial Engine was determined to be the best match. "The C1.1 was the optimal fit and form to meet our overall product dimensional requirements," says Pettigrew, who emphasizes that the engine's ultra-compact size was important to VMAC. The company looks to reduce size with all of its product designs while also still providing powerful performance.

Noise reduction was another important consideration. That's because air compressors tend to produce noise at high decibel (dB) levels. In fact, the Finning team had expressed interest in getting a quieter product from VMAC, and the C1.1 made that possible: it utilizes lower engine speeds, which helps reduce noise better than other small industrial engines.

"From 21 feet, our traditional multifunction power system produces 81.2 dB at high idle and 76 dB at low idle," Pettigrew explains. "In comparison, the newer system with the Cat C1.1 engine produces 74.25 dB at high idle and 69.75 dB at low idle. Reducing noise by more than six decibels helps protect workers' hearing and creates safer jobsites."

Pettigrew says his company is happy with the results. "This was a positive experience for VMAC. The Cat C1.1 engine allows us to provide a reliable, quiet and durable product – one with high performance, a compact package size and optimized fuel efficiency," he says. "Also, the Cat brand helps build instant trust with potential customers. Our end users know that Cat small engines are robust with reliable quality, which gives our products more credibility."



**"THE CAT 1.1 ENGINE
ALLOWS US TO
PROVIDE A RELIABLE,
QUIET AND DURABLE
PRODUCT."**



LET'S DO THE WORK.™

© 2019 Caterpillar. All Rights Reserved. CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Yellow", the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

