POWER PROFILE: **DOK-ING MV-10 HEAVY-DUTY EOD ROBOTIC SYSTEM**

LIFE-SAVING ROBOTICS

DOK-ING

REGION:
Zagreb, Croatia

SCOPE OF ENGINE USE:
Cat® C18 EU Stage V Industrial Engine

CAT® DEALER:
Teknoxgroup Hrvatska

WEBSITE:
dok-ing.hr

FEATURED TOPIC:
Industrial Engines

CLEARING THE WAY FOR PROGRESS

While most equipment manufacturers can say their products improve quality of life, DOK-ING can make an even more powerful claim — its machines literally save lives in more than 40 countries around the world. Founded in 1991 during the Croatian War of Independence, the company was the first to manufacture a robotic system that removes land mines from large areas, so people can use and develop those spaces safely.

Previously, most minefields were cleared by hand, sometimes with the help of trained dogs. That's not just dangerous — it's also slow and inefficient, especially in areas with heavy vegetation where anti-tank and anti-personnel mines can be difficult to locate. DOK-ING founder Vjekoslav Majetić saw an opportunity to improve on that process, using the combination of a heavily armored machine and remote-controlled operation.

DOK-ING's premier mine-clearing system, the MV-10, uses a rotating flail/tiller tool to break up or detonate land mines: The flail works on the ground to destroy vegetation and surface mines, and the tiller digs deep into the ground to destroy buried mines. The two tools working together allow the MV-10 to clear a site faster than competitive products, which only use a flail or a tiller, not both.

Powered by a Cat® C18 industrial engine, the MV-10 is constructed with military-grade armor, so it can withstand anti-tank mine blasts without sustaining damage. The operator is positioned up to safe 1500 meters away from the action, using remote control to maneuver the machine and a video monitor to track its progress.

STANDING STRONG IN THE FACE OF DANGER

As far as demanding machine applications go, mine-clearing certainly rises to the top of the list. Not only is the process of destroying land mines dangerous, but minefield locations also present an array of challenging conditions: everything from desert sand and heat to mountainous terrain and snow. "These environments are very harsh," says Tihomir Mendek, senior mechanical

engineer with DOK-ING. "The MV-10 is proven to be very reliable with minimal maintenance needed."

Explosive conditions are no problem. A machine as tough as the MV-10 requires an engine that's just as hardy — and that's why DOK-ING chose the Cat C18. It delivers plenty of power to run the MV-10's unique dual flail/tiller demining tool, and DOK-ING has experienced no issues with engine overheating, damage or added maintenance despite the difficult working environment. "The C18 provides exceptional performance regardless of operating conditions, driving all our hydraulic systems without difficulty," Mendek says.

Long life is a life-saver. Another factor in the selection of the C18 was Caterpillar's reputation for producing high-quality, long-lasting products. That appeals not just to DOK-ING but also to those who use mine-clearing systems — governments, humanitarian organizations and military operations. "When they're engaged on a million-square-meter site and every hour counts, they need a reliable, proven product," Mendek says. "Every time we inform the customer that there is a Cat engine inside the MV-10, we get the nod of approval."

Uptime can mean the difference between life and death. Service and support matter too, especially since the MV-10 operates around the world, often in remote locations. Cat dealer Teknoxgroup supplies the Cat engines that power DOK-ING's machines as well as the replacement parts required to maintain them. And DOK-ING counts on the global Cat dealer network to keep the MV-10 up and running, so it can continue its important work of saving lives. "We serve a global market that needs good after-sales support and a worldwide service network. That's why Caterpillar is a great solution," Mendek says.

"Every time we inform the customer that there is a Cat engine inside the MV-10, we get the nod of approval."

LET'S DO THE WORK.™

CAT®