



---

# GOOD IDEAS DRIVE INNOVATION

---

**Manitex Lifting heads the advice of its customers and launches its new rough-terrain forklift trucks with John Deere power**



Manitex's new 5M rough-terrain forklift truck heads to farms and orchards — ready to work.



Built to lift 2.3 metric tons (5,000 pounds), the Manitek 5M flexes its muscles with a PowerTech M 4.5L engine.



Manitek custom built this forklift truck for the mining industry with John Deere power.

**W**hen Manitek Liftking set out to develop new rough-terrain forklift trucks for the agricultural industry, it drove to the orchards and fields, gathered pallets of farmer feedback, and unloaded the final results onto the desk of engineering manager Ivan Gramatikov.

The list of specifications for the forklift truck was detailed and rooted in years of field experience. What they wanted was a truck with an overall width no wider than 2 meters (79 inches) to travel down an orchard row and a tight turning radius. Plus, it had to be low profile enough to pass under an overhead door, yet have high enough ground clearance to traverse rough terrain.

**The farmers were also clear about their power source. They wanted it powered by a John Deere engine. “That was one of the requirements,” explains Gramatikov. “Many of the customers were already running machines with John Deere engines, and that is the engine they prefer.”**

With a full line of construction forklifts powered by competitive diesel engines, Manitek decided to take its customer input into consideration and power its two new forklifts with the John Deere PowerTech M 4.5L engine. This Interim Tier 4 engine powers both the 5M with a 2.3-metric ton (5,000-pound) lifting capacity, and the 6M, with a 2.7-metric ton (6,000-pound) lift. By mid-2016, the company will offer the trucks with a John Deere Final Tier 4/Stage IV engine.

Both forklift trucks feature hydrodynamic four-wheel drive and a maximum speed of 40 kilometers per hour (25 miles per hour). Rated at 55 kW (74 hp), the PowerTech M 4.5L engine has the torque performance to climb a 15 percent grade under maximum load.

Manitek worked closely with M-K Power Products in Mississauga, Ontario, Canada, during the development of the forklift trucks. “They provided engine specifications and 3-D models of the engine for design purposes to see how it would fit,” says Gramatikov, “and the engine fit just perfectly.”

Gramatikov says the forklift trucks can be customized with features such as a bin clamp, slope piling carriage, load stabilizer, and special turf tires that tread softly on fragile surfaces like turf grass. The company also builds many one-off machines. Recently it custom designed a forklift truck for a mining company. “We designed a truck with 12,000 pounds (5 metric tons) of lifting capacity with a special width and height because they will drive it into the mine shaft,” Gramatikov explains.

Again, the mining company was adamant about the engine brand.

Our customer specifically wanted an Interim Tier 4 John Deere engine, because in the mining industry, they work in remote locations. All mobile equipment they have at this location are John Deere, and their technicians are familiar with the engines and can service them.”

John Deere-powered Manitek forklift trucks are also supported by a global network of John Deere ag and construction dealers.

“Our association with John Deere will be good for our product line,” says Gramatikov, “because the John Deere name is so well known around the world.”

 Engine distributor: M-K Power Products, Mississauga, Ontario, [www.m-k.com](http://www.m-k.com)