

CLEAN SWEEP



Elgin sweepers protect the environment at street level — and beyond

For nearly 40 years, Elgin sweepers have been cleaning city streets, sweeping through each rising tier of emissions standards with John Deere engines. Today Elgin Sweeper Company of Elgin, Illinois, introduces several popular sweepers with John Deere Final Tier 4/Stage IV engines. We're talking with James Crockett, air sweeper products manager, about the innovative technologies that are making the company's sweepers cleaner and more efficient than ever before.

PowerSource: Elgin now offers the PowerTech™ EWX 4.5L Final Tier 4/Stage IV engine on its Pelican, Crosswind, and Whirlwind sweepers, and the PowerTech PWL 4.5L Final Tier 4/Stage IV engine on the Waterless Pelican. What was behind your decision to transition to Final Tier 4/Stage IV with John Deere engines?

Crockett: We decided to transition to Final Tier 4 with John Deere engines because the engines are reliable and they've proven themselves. Our flagship sweeper, the Elgin Pelican, has been powered by

John Deere engines since the '70s, and we saw no reason to change it. Again, because of the reliability and durability, we didn't want to change the perception of our brand by going to another brand of engine. Our customers prefer a Deere, and we didn't want to deviate from that. It only makes sense to continue our partnership with John Deere and put the engines in our core product lines.

PowerSource: You've loaded your sweepers with a lot of innovation in recent years. Tell us about your patented Shared Power technology and how it helped the

Crosswind and Whirlwind sweepers achieve Final Tier 4 emissions compliance with the 55-kW (74-hp) PowerTech EWX 4.5L engine.

Crockett: Shared Power technology sources power from the truck's chassis engine when the sweeper is under load. It will boost the system to get the same level of pickup performance that customers demand while being environmentally friendly, fuel-efficient, and quieter. It's part of our Ecolnfused® Technology initiative to develop green, energy-efficient, low emissions technology solutions.



The Elgin Crosswind sweeper now cleans city streets with a PowerTech EWX 4.5L Final Tier 4/Stage IV engine.



"We anticipate the reliability and durability of the John Deere Final Tier 4 engine to be equal or greater to the previous tier engines," says James Crockett, air sweeper products manager for Elgin Sweeper.

PowerSource: Can you share some figures?

Crockett: The patented Shared Power technology improved the fuel economy of the Elgin Crosswind sweeper by approximately 16 percent. It's also approximately 3 dBA quieter. As a result, the Elgin Crosswind with Shared Power will also reduce the carbon footprint.

PowerSource: The sweeper also features regenerative braking. Could you explain this technology?

Crockett: When you are coasting down a hill or decelerating, you take the horsepower that's being generated by the chassis and apply it directly back to the sweeper system at no cost. So that, too, is an added benefit as a result of its hybrid-like tendencies.

PowerSource: Is the same engine powering the Pelican sweeper?

Crockett: The Pelican has the same engine, but it's a hydrostatically driven vehicle, so we incorporated a horsepower management system with anti-stall technology. This allows us to use a 74-hp (55-kW) PowerTech EWX engine, rather than the 99-hp (74-kW) engine that previously powered the Pelican sweeper.

PowerSource: What are the advantages of staying at this power rating?

Crockett: Less complexity, less maintenance, and no diesel exhaust fluid.

The PowerTech EWX is a very clean engine package. Customers are also saying they're a little bit quieter than the previous 4.5L engine. We looked at the EWX engine as a great fit.

PowerSource: What about package size?

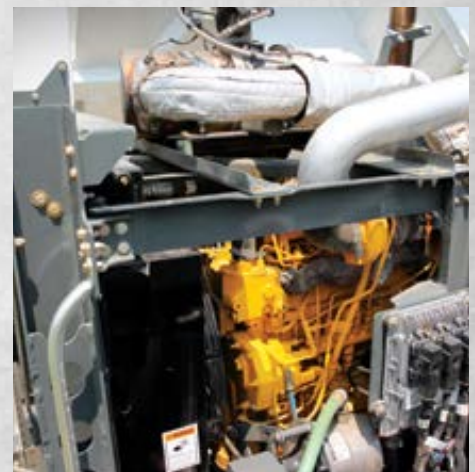
Crockett: For the most part, the PowerTech EWX 4.5L Final Tier 4 engine closely resembles the PowerTech 4.5L Interim Tier 4 model. The footprint of the engine stayed the same. With the PowerTech EWX, we are able to fit the diesel oxidation catalyst (DOC) and diesel particulate filter (DPF) inside the engine enclosure, which is valuable because you don't want the emissions system damaged if the sweeper goes under a low-hanging tree limb. At the same time, you are protecting the system from water intrusion and dust, while also lowering noise levels.

PowerSource: Describe your experiences with the engine's regeneration process.

Crockett: The engine automatically goes into passive regeneration while it's sweeping. That's huge for Elgin Sweeper because it does not impact sweeper productivity. We promote that fact.

PowerSource: What's next for the Final Tier 4/Stage IV lineup of sweepers?

Crockett: We have an open project to bring the Elgin Megawind and Waterless Eagle sweepers to Tier 4 Final.



The PowerTech EWX 4.5L engine meets Final Tier 4/Stage IV emissions using no diesel exhaust fluid.

PowerSource: What do you anticipate regarding the overall reliability and durability of the John Deere Final Tier/Stage IV engine?

Crockett: Reliability and durability are attributes that resonate with the Elgin Sweeper brand. We don't want to compromise those values. The John Deere brand and the John Deere engine share these same attributes. We anticipate the reliability and durability of the John Deere Final Tier 4 engine to be equal or greater to the previous tier engines. Knowing this, it makes the transition seamless into Final Tier 4.

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