Generator Drive Applications

Diesel Engines

Ready for anything with reliable prime or standby power
John Deere generator power

– Leading gen-set manufacturers trust John Deere PowerTech™ generator drive engines.
– John Deere is one of the very few engine manufacturers that doesn’t make gen-sets. It makes us unbiased experts on this market.
– We listen closely to gen-set manufacturers’ needs to provide reliable, quiet, and fuel-efficient power.
– Pre-configured cooling packages in John Deere gen-set power units (GSPU) provide ease of design and installation.

– Compact engines deliver the best power density and most compact design.
– Complete power range meets all worldwide emissions regulations and certifications – from non-emissions certified engines to Stage III A (Europe) and Interim Tier 4 (North America).
– Reliable operation, low maintenance, long engine life, and unbeatable fuel consumption lead to low cost of ownership.
– Extensive worldwide support network provides peace of mind.
On site portable power
Ready when you need it

Prime or standby power
John Deere generator drive engines are ready when and where you need them! They provide fast response for standby situations and exceptional load recovery in all applications.

Without interruption
When it’s your prime power source, you can’t afford any interruptions. That’s where John Deere generator drive engines earn their reputation for reliability and confidence.

In any condition
Are you operating in sub-zero cold or blistering heat? Don’t worry. John Deere engines start in freezing temperatures thanks to advanced electronic high-pressure fuel systems and preheating options such as glow plugs, air heaters, or block heaters. We also offer a full line of cooling packages built to handle the hottest working conditions.

For the long haul
The John Deere name has always been synonymous with durability. It explains why you find so many John Deere engines continuing to do their job years after they were put into service.
John Deere engines are the preferred choice of major gen-set manufacturers worldwide.

Complete freedom
Select from a wide range of John Deere generator drive engine models with displacements from 2.4L to 13.5L and a variety of options. Our power ranges overlap across engine displacements so you can choose exactly the right fit for your application. You also have the choice between a bare engine or a gen-set power unit (GSPU). Preconfigured GSPUs come with a radiator, fan, and air filter integrated at our factory for maximum efficiency and minimum envelope density. They can save you hours of engineering time and help you get generator sets to market faster. Some call that instant gratification. We call it freedom.

- 12V or 24V electrical systems
- Left or right side service points
- Multiple fan heights and speed ratios
- Factory-installed cooling systems

Compact power
Imagine a 4-cylinder engine that performs like a 6-cylinder! One of the secrets of John Deere engines is their ability to generate maximum power with minimum engine noise and installation space. We use engine technologies such as four-valve cylinder heads to achieve maximum power density. Through these advancements, our current 4.5L and 6.8L engines perform in applications where larger displacement engines are traditionally required. Our power density also helps customers save on fuel costs.

Installation flexibility
Install John Deere engines using the engine block’s front or side mounts. It’s your choice. We also offer many options to ensure perfect integration and provide single-side service points for easy access. Have a unique space or noise requirement? With our multiple fan heights and speed ratios, you can build generator sets for tight places or quiet operation.

Application assistance
It’s like having a direct line to an application engineer. Our experienced technical team works closely with you to make sure John Deere engines are compatible with your gen-sets.
Ready for Stage III A and Interim Tier 4 emissions regulations

New power range
John Deere offers a complete range of Stage III A generator drive engines from 30 to 300 kVA in displacements from 2.9L to 9.0L. The latest additions to our power range meet all Stage III A emissions regulations, due to start in 2011, for non-emergency or mobile prime power gen-sets in Europe. We also offer a full line of reliable Stage II and non-emissions certified engines for standby gen-sets and non-regulated areas. These engines are the result of talking one-on-one with our gen-set customers and designing engines to their specifications. Our new Stage III A and Interim Tier 4 engines meet the power needs of generator set customers across Europe and around the world.

Ready for any market
John Deere generator drive engines keep your gen-sets in compliance, and they keep your customers confident. Wherever your generator sets go, they will be ready to meet local emissions regulations in most countries.

The chart below shows European Union and North American emissions regulations for nonroad mobile machinery. John Deere is ready for Stage III A, Interim Tier 4, and beyond.

Advanced electronic controls
John Deere uses proven electronic controls in almost all our power ranges. They help provide load recovery, clean power, better diagnostics, engine monitoring, and ease of synchronisation when operating more than one set in parallel. Electronic controls also make it easy to switch between different frequencies. While our Stage III A engines are optimised for 50 Hz at 1500 rpm to meet European customer demands, they are simple to switch to 60 Hz at 1800 rpm for manufacturers who export gen-sets to other regions.

Clean and easy operation
The simplicity and convenience of John Deere engines extends to the gen-set owner. All service points are located on a single side for easy access and quick service. These new engines are designed to minimise noise and vibration. They are also equipped with a system for purifying crankcase gases (OCV - Open Crankcase Ventilation) to maintain a cleaner work environment.

Nonroad mobile machinery constant speed engines emissions regulations

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Our engines are recognised for their exceptional power density, which results in smaller canopies and less weight on the trailer and on the road.
Reliable power anywhere
Our solutions to different regulations

We offer a wide power range of generator drive engines from 21 to 460 kW. These engines comply with all nonroad emissions regulations for the European Union (EU) and the U.S. Environmental Protection Agency (EPA).

**Standby power.** The European Union (EU) does not regulate emergency standby applications. The EPA requires emergency standby applications to meet Tier 3 emissions regulations.

**Prime power.** Starting in 2011, prime power applications are required to meet Stage III A emissions regulations in Europe and Interim Tier 4 in North America.

### Gen-Set Ratings 50 Hz (1500 rpm)

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### Gen-Set Ratings 60 Hz (1800 rpm)

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### 50 Hz engines

Our current engine range meets both the Stage II and Stage III A emissions regulations introduced by the European directive 97/68/EC. Also, many of the engines in this range meet the TA-Luft and CCNR regulations. Non-emissions certified engines are also available for non-regulated markets.

### 60 Hz engines

Within this range, we offer a wide choice of engines that fully meet the EPA Tier 1, Tier 2, Tier 3, and Interim Tier 4 emissions regulations. Non-emissions certified engines are also available for non-regulated markets.
Ready for results

Fuel efficiency
Create more power with less fuel. We help you deliver on this promise with four-valve cylinder heads, low-friction pistons, and advanced electronic controls. These are just some of the tools John Deere engineers utilise to improve fuel economy and performance while meeting emissions regulations.

Quiet operation
John Deere generator drive engines have low noise and vibration. This helps manufacturers build quiet gen-sets with less isolation of the canopy.

Real reliability
Built on a foundation of sturdy, compact engine blocks. Enhanced with technological advancements and innovation. John Deere engines are known throughout the world for their reliability and durability.

– Dynamically balanced moving parts such as the crankshaft make our engines quieter and limit vibrations.
– Components such as the thermostat housing and the air intake manifold have been integrated into the cylinder head to reduce leaks.

Total quality
From our continuing research and development efforts to our rigorous manufacturing processes, every component of a John Deere engine is scrutinised for quality. The total result is a generator drive engine that delivers performance, fuel efficiency, reliability, emissions compliance, and easy installation—a combination of engine qualities that you can’t find just anywhere. We are ISO 9001 and 14001 certified and have expertise partnering with gen-set manufacturers worldwide.

Low cost of ownership
John Deere generator drive engines quietly do their job generating electrical power. They rarely need repair. They go 500 hours or more without routine service. Their fuel efficiency even minimises the number of times you have to fill the tank. It all adds up to a low cost of ownership. It’s exactly why John Deere has received the attention and loyalty of so many generator set manufacturers and customers.
Ready to provide customer support

Easy access to parts and service
With more than 4,000 John Deere service locations worldwide, you never have far to go to find expert assistance and advice.

Simple maintenance
John Deere engines are easy to service and maintain. Our engines also feature extended oil change intervals — up to 500 hours. And single-side service points make it easy to check and maintain fuel filters, oil filters, starters, and fluid levels.

- Automatic belt tensioners minimise maintenance cost and increase belt life.
- Larger fuel filters, water separators, fuel pressure sensors, and fault code diagnostics optimise filter life.

Remanufactured components
Reduce potential operating downtime and repair cost with John Deere remanufactured engines and engine components. Remanufactured components provide a high quality, quick replacement at a lower cost.

Fast parts delivery
You can count on genuine John Deere parts. Our dealers stock maintenance parts, many other common replacement parts to meet your service needs quickly. Our worldwide parts distribution system also provides overnight delivery in most regions.

A warranty you can count on
From the day your gen-set begins operation, it’s warranted for uninterrupted service. We offer a 2-year/2,000-hour and 1-year/unlimited-hour warranty. In addition, extended warranties are available under certain conditions — up to 5 years/5,000 hours. Be sure to register your engine for warranty support.
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