Generator Drive Applications

Final Tier 4 DOC/SCR Engines

JOHN DEERE

Power Meets Progress

John Deere generator drive engines are built to perform in extreme conditions with reliable operation, low maintenance, long engine life, and exceptional fluid economy. They give you the power to meet any challenge.

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 a wide variety of applications.

A smart choice

With John Deere, you get a wide range of configurations and accessories so you can specify the right engine that best fits your application. Our preconfigured options and innovative technologies can help save hours of engineering time and help you get machines to market faster.

Extensive integration network

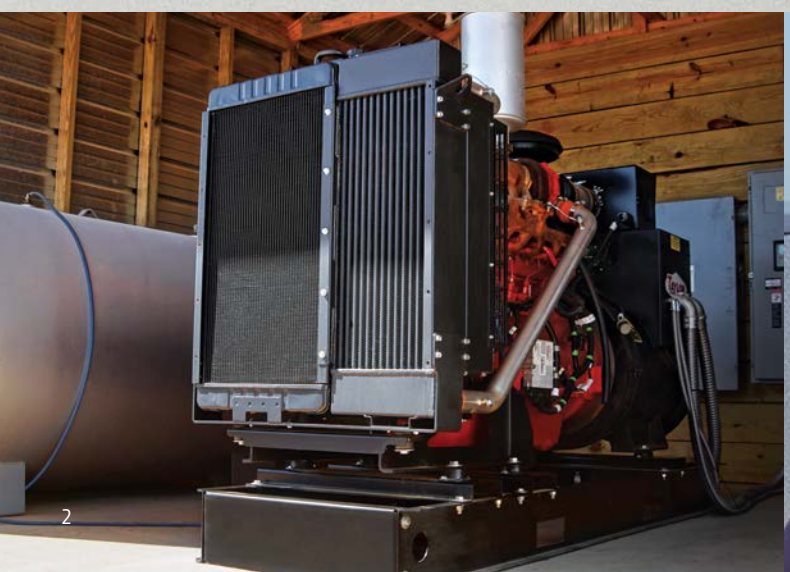
You get expert integration assistance provided by John Deere engineers and distributors. OEMs can put our application engineering experience and know-how to work to help save development time and money.

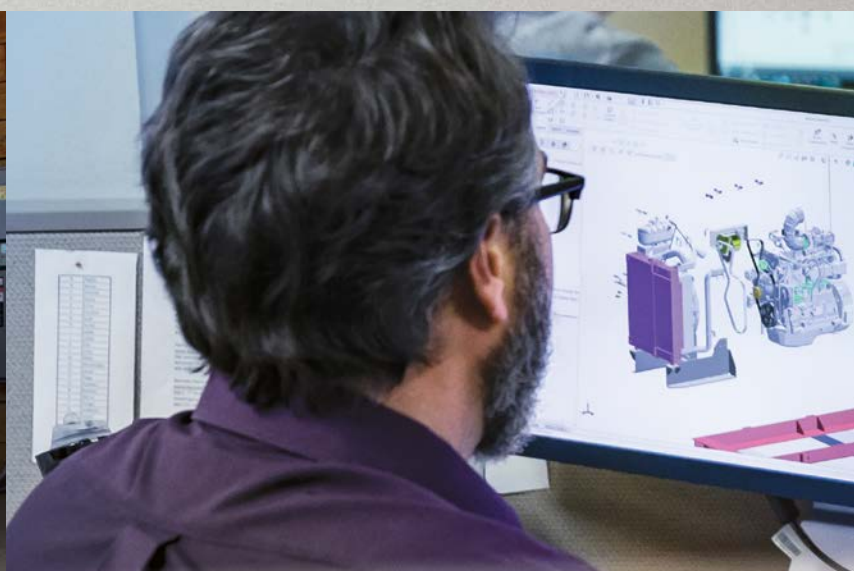
Unparalleled customer support

With more than 9,000 John Deere service locations worldwide, you never have far to go to find expert assistance and advice. We support you not just at the beginning, but throughout the full lifetime of our products.

Ultimate uptime

Our distributors and dealers stock maintenance parts, as well as many other common replacement parts, to meet your service needs quickly. Our worldwide parts distribution system offers overnight delivery in most regions.





Engines for EPA Final Tier 4 applications

John Deere offers a full line of generator drive engines to give generator set manufacturers more choices for meeting EPA Final Tier 4 emissions regulations without the need for a diesel particulate filter (DPF). These diesel oxidation catalyst/selective catalytic reduction (DOC/SCR) engines provide compact power, with low installation costs. Both 50 Hz and 60 Hz configurations are EPA Final Tier 4 certified.

Node	Engine name	Type	Engine model	Speed	Standby ratings			Prime ratings			Generator efficiency	Fan power	Dual freq.
kVA (kWE) prime				rpm	kWm	kVA	kWe	kWm	kVA	kWe	%	kW	
DOC and DPF aftertreatment													
55 (40)	EWX 4.5L	4 cyl.	4045TFG03	1800	55	57	46	50	52	41	90	3.9	–
DOC and SCR aftertreatment													
60 (50)	PWL 4.5L	4 cyl.	4045HFG04	1500	68	72	57	62	65	52	90	4.4	■
				1800	68	71	57	62	64	51	90	4.8	
75 (60)	PWL 4.5L	4 cyl.	4045HFG04	1500	80	84	67	73	76	61	90	5.1	■
				1800	80	84	67	73	76	60	90	5.6	
95 (75)	PWL 4.5L	4 cyl.	4045HFG04	1500	80	85	68	73	77	61	92	6.3	■
				1800	99	106	85	90	96	76	92	6.9	
125 (100)	PSL 4.5L	4 cyl.	4045CG440	1500	112	121	97	102	109	87	92	7.1	■
				1800	128	138	111	117	126	101	92	7.7	
155 (125)	PVL 6.8L	6 cyl.	6068HFG05	1500	160	175	140	146	158	127	92	8.2	■
				1800	160	174	139	146	158	126	92	9	
190 (150)	PVL 6.8L	6 cyl.	6068HFG05	1500	165	180	144	150	163	130	93	9.9	■
				1800	192	211	169	175	191	153	93	10.8	
210 (170)	PSL 6.8L	6 cyl.	6068HFG06	1500	197	215	172	179	194	155	93	11.8	■
				1800	216	236	189	196	213	171	93	13	
235 (190)	PSL 6.8L	6 cyl.	6068HFG06	1500	197	214	171	179	193	154	93	13.1	■
				1800	240	262	210	218	237	190	93	14.4	
270 (215)	PSL 9.0L	6 cyl.	6090HFG06	1500	273	300	240	249	272	218	93	14.9	■
				1800	273	298	239	249	270	216	93	16.4	
320 (250)	PSL 9.0L	6 cyl.	6090HFG06	1500	300	328	262	273	297	237	93	17.8	■
				1800	326	356	285	297	322	258	93	19.6	
-	PSL 9.0L	6 cyl.	6090HFG06	1500	300	327	261	-	-	-	93	18.9	■
				1800	345	377	302	-	-	-	93	20.7	
500 (400)	JD14P	6 cyl.	6136CG440	1500	505	474	379	391	428	343	93	22.5	■
				1800	505	521	417	431	472	378	93	24.7	

The John Deere difference

Proven performance

Off-highway experience

John Deere has billions of hours of field experience with off-highway engine technologies.

We use an exhaust system strategy that is designed to be transparent to the operator, without impacting machine performance. Our proven aftertreatment solution has logged more than 1 billion hours of operation on hundreds of internal and external OEM applications.

Load acceptance

Tailored turbocharging technology provides exceptional load acceptance and block loading capability.

Engines with cooled exhaust gas recirculation (EGR) deliver up to eight times better transient response than non-EGR engines. The potential energy transferred through EGR is immediately available to the turbo to generate boost.

John Deere engines meet ISO 8528-12 Class G3 international standards.

Reliable uptime

Day-to-day reliability

John Deere engines feature top-liner cooling, efficient lubrication, and robust cooling systems for reliable operation.

Long-haul durability

Heavy-duty, oversized components and wet-type cylinder liners provide long engine life.

John Deere engines are designed for rugged applications.

Extreme conditions

John Deere engines are built to operate in hot and dry, subzero, and humid climates as well as high altitudes. The engine control unit (ECU) monitors and protects engine components in these extreme conditions.

In regions where fuel quality may vary, John Deere protects the engine with two-stage fuel filtration and water detection.

Simple aftertreatment

John Deere engines that meet Final Tier 4 emissions regulations without the need for a diesel particulate filter (DPF) have a lower installed cost and are easier to maintain. This simple, straightforward engine technology is preferred by many gen-set customers.

Efficient operation

Fuel efficiency

The efficient design of the John Deere combustion chamber with high-ring pistons helps reduce fuel consumption.

Less DEF

Use of cooled EGR reduces nitrogen oxides (NOx) out of the engine. This enables the use of a smaller selective catalytic reduction (SCR) system and lower diesel exhaust fluid (DEF) consumption. John Deere engines with EGR use 1 to 3 percent less DEF compared to non-EGR engines.

Low-idle capability

Reduces fluid consumption and decreases wear during transport or start-up and shutdown checks.

Life cycle costs

Reliable operation, low maintenance, long engine life, and exceptional fluid economy lead to low cost of operation with John Deere engines.

Easy integration

Power density

John Deere engines are designed to deliver maximum power in a compact engine package. They are known for delivering exceptional kWm per liter of displacement.

DOC/SCR engines continue that tradition of power density, while providing improved engine packaging.

Configurability

John Deere offers a full line of no-DPF engines.

With compact aftertreatment packaging and multiple parts options, OEMs may have to do less modification of their gen-sets to integrate John Deere engines. This configurability saves development costs and reduces delivery time to market.

Variable-speed fan options are available.

With multiple fan heights and speed ratios, you can build gen-sets for tight places and quiet operation.

Single-side service points make installation and maintenance easy.

Dual frequency

Manufacturers that need 50 Hz and 60 Hz power can switch between 1500 and 1800 rpm without reprogramming.

Integrated Emissions Control system

John Deere has integrated advanced technologies with field-proven solutions to meet each regulatory tier. A single engine control unit (ECU) manages the engine and entire Integrated Emissions Control system.

Turbocharging

John Deere engines use fixed geometry turbochargers sized for specific power ranges, wastegate turbochargers (WGT) to develop more airflow at lower engine speeds, and variable geometry turbochargers (VGT) to tailor the amount of recirculated exhaust gas that mixes with fresh air. Some models use a fixed turbocharger and VGT in series to deliver higher power density, improved low-speed torque, and excellent high-altitude operation.

Cooled exhaust gas recirculation (EGR)

Cooled EGR is a proven technology that reduces nitrogen oxides (NOx) by mixing measured amounts of cooled exhaust gas with incoming fresh air to lower the engine's peak combustion temperature.

Selective catalytic reduction (SCR)

John Deere Final Tier 4 engines feature an SCR system that utilizes a urea-based additive, sometimes referred to as diesel exhaust fluid (DEF). The ammonia in the urea mixes with engine exhaust gases in the SCR catalyst to reduce NOx — converting it to nitrogen and water vapor. This is an accepted technology for reducing NOx in nonattainment areas.

Always at your side

Warranty support when you need it

John Deere provides one of the best warranties in the business. Our 2-year/2,000-hour standard warranty applies not only to the new OEM engine but also to John Deere parts and accessories added by a John Deere engine distributor.*

Register your John Deere OEM engine and enable your John Deere dealer or engine distributor to respond should you need a warrantable repair.‡ Registering your engine at **JohnDeere.com/OEMWarranty** gives us the information needed to stock the right service parts, maintenance products, and servicing tools.

** When sold by John Deere, its authorized dealers and distributors, and delivered to the first retail purchaser.*
‡ See specific OEM product warranty language for applicable terms and conditions. Refer to the John Deere new engine warranty for complete warranty coverage details.
Note: the 2-year/2,000-hour standard warranty and OEM engine registration may not be available in all countries.

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