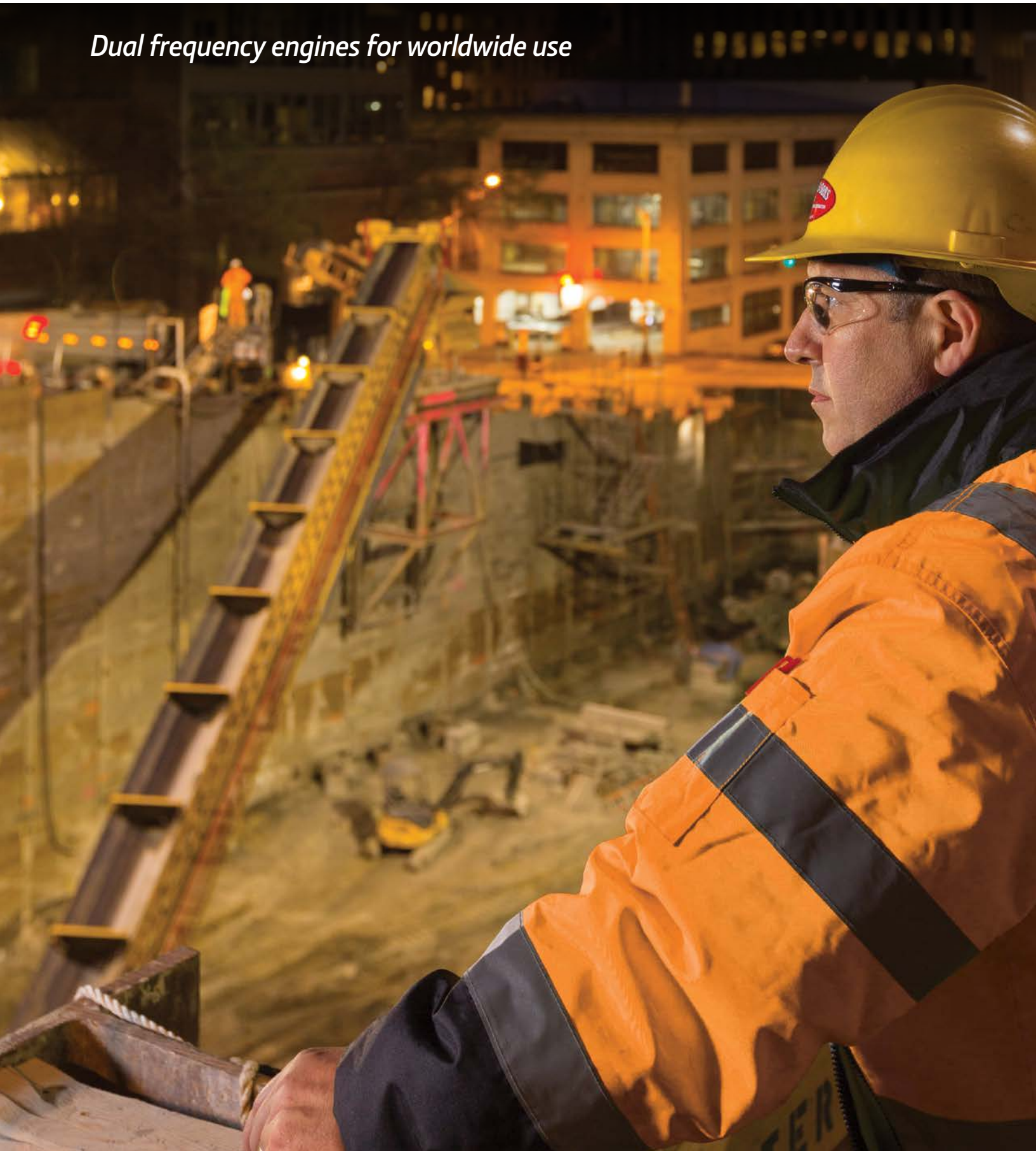
Generator Drive Applications

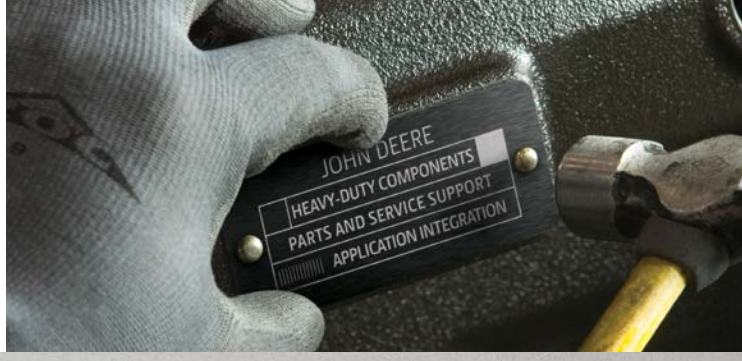
Stage V/Final Tier 4 Engines

JOHN DEERE

Dual frequency engines for worldwide use



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 EU Stage V and EPA Final Tier 4 applications

John Deere generator drive engines meet EU Stage V and EPA Final Tier 4 emissions regulations. OEM customers currently using a John Deere Stage IV engine with a DPF won't have to re-engineer the machine design to meet the requirements of Stage V regulations. Both 50 Hz and 60 Hz configurations are EU Stage V and EPA Final Tier 4 certified.

Node	Engine name	Type	Engine model	Power unit model*	Speed	Standby ratings			Prime ratings			Generator efficiency	Fan power	Dual freq.	RoHS†
kVA prime					rpm	kWm	kVA	kWe	kWm	kVA	kWe	%	kW		
DOC and DPF aftertreatment															
30	EWX 2.9L	3 cyl.	3029HG530	3029HP530	1500	36	38	31	33	35	28	90	1.8	■	■
					1800	36	38	31	33	35	28	90	1.8		
40	EWX 2.9L	3 cyl.	3029HG530	3029HP530	1500	48	51	41	44	46	37	90	2.4	■	■
					1800	48	51	41	44	46	37	90	2.4		
55	EWX 2.9L	3 cyl.	3029HG530	3029HP530	1500	55	59	47	50	53	43	90	2.8	■	■
					1800	55	59	47	50	53	43	90	2.8		
DOC, DPF, and SCR aftertreatment															
80	EWS 4.5L	4 cyl.	4045HG551	4045HP551	1500	83	91	73	76	82	66	92	4.2	■	■
					1800	86	94	75	78	85	68	92	4.3		
100	EWS 4.5L	4 cyl.	4045HG551	4045HP551	1500	103	113	90	94	102	81	92	5.2	■	■
					1800	106	116	93	96	105	84	92	5.3		
150	PVS 6.8L	6 cyl.	6068HG550	6068HP550	1500	165	182	146	150	165	132	93	8.3	■	■
					1800	180	199	159	164	180	144	93	9.0		
200	PSS 6.8L	6 cyl.	6068CG550	6068CP550	1500	202	223	178	184	202	162	93	10.1	■	■
					1800	216††	239	191	197	216	173	93	10.8		
275	PSS 9.0L	6 cyl.	6090CG550	6090CP550	1500	273	301	241	248	273	218	93	13.7	■	■
					1800	273	301	241	248	273	218	93	13.7		
300	PSS 9.0L	6 cyl.	6090CG550	6090CP550	1500	304	336	269	277	304	243	93	15.2	■	■
					1800	326	360	288	297	326	261	93	16.3		
500	JD14X	6 cyl.	6136CG550	—	1500	505	557	446	460	505	404	93	25.5	■	■
					1800	505	556	445	460	503	403	93	26.5		

* Power unit includes factory-mounted cooling package, air filter, and feet.

† The majority of John Deere Stage V engines comply with the European Union's Restriction of Hazardous Substances (RoHS) Directive, 2011/65/EU, as amended.

†† Rating at 241 kWm is also available.

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.

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 startup 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

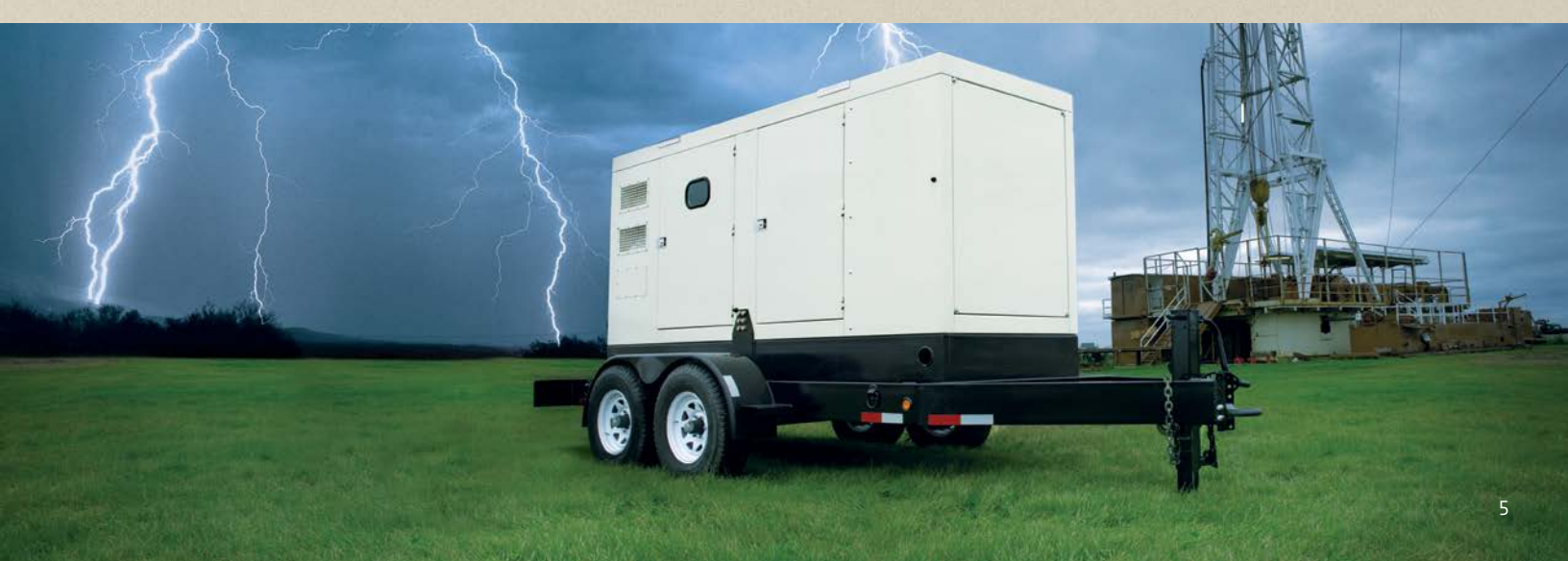
Preconfigured power units

John Deere engine packages come with mounting pads, cooling package, and air filter for ease of design and installation.

Dual frequency

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

The majority of John Deere Stage V engines are RoHS compliant for the Restriction of Hazardous Substances in the EU.



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.

Exhaust filters

All engine models that meet Stage V emissions use an exhaust filter with a diesel oxidation catalyst (DOC) and diesel particulate filter (DPF) to provide a reliable solution for reducing particulate matter (PM). This is the accepted technology for reducing PM in nonattainment areas.

Selective catalytic reduction (SCR)

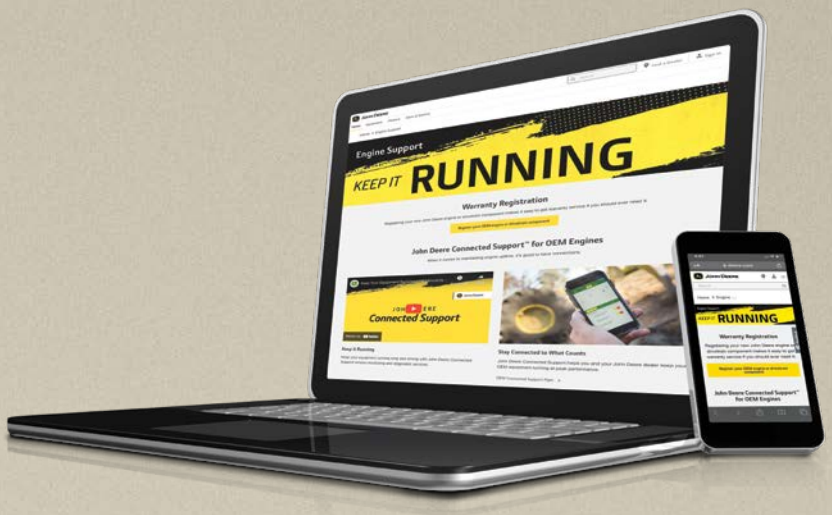
John Deere Stage V/Final Tier 4 engines feature an SCR system that utilizes a urea-based additive, sometimes referred to as diesel exhaust fluid (DEF). The ammonia in the urea mixes with engine exhaust gases in the SCR catalyst to reduce NOx — converting it to nitrogen and water vapor. This is an accepted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

Always at your side

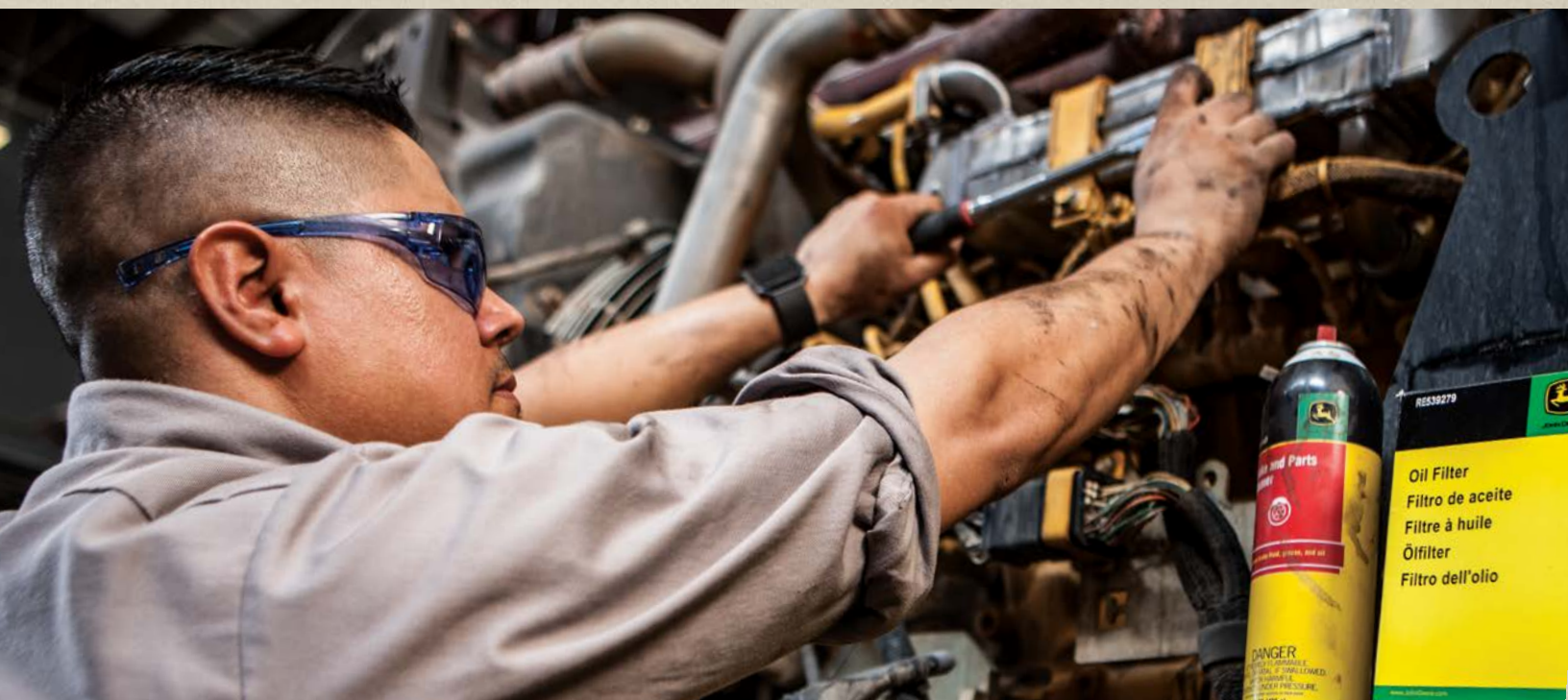
Warranty support when you need it

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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