

Lesser-Regulated Diesel Engines

Tier 3/Stage III A Equivalent and Non-Emissions Certified



JOHN DEERE

Reliable operation in remote locations around the world



Run with confidence

You can count on John Deere PowerTech™ industrial engines to start in the morning, operate efficiently all day, and work reliably for many years. But pure product performance isn't the strongest thing about working with John Deere. It's the confidence of having the John Deere integration and support network at your side every step of the way.

Off-highway experience

John Deere specializes in rugged off-highway applications. That's why our engines are built with heavy-duty components, top-liner cooling, steel pistons to maximize reliability, and wet-type cylinder liners for long-haul durability.

The power of 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 can help save hours of engineering time and help you get machines to market faster.



Integration assistance

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.

Customer support

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

Fast parts delivery

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 Tier 3/Stage III A equivalent and lesser-regulated applications

Tier 3/Stage III A equivalent industrial engine power ratings

PowerTech technology	Engine model	Power ratings	Turbo	Cooled EGR	Power range
M 4.5L	4045TF280	56 – 63 kW (75 – 85 hp)	Fixed	-	
M 4.5L	4045HF280	74 kW (99 hp)	Fixed	-	
E 4.5L	4045TF285	63 – 74 kW (85 – 99 hp)	Fixed	-	
E 4.5L	4045HF285	86 – 104 kW (115 – 140 hp)	Fixed	-	
Plus 4.5L	4045HF485	111 – 129 kW (149 – 173 hp)	VGT	Yes	
E 6.8L	6068HF285	104 – 149 kW (139 – 200 hp)	Fixed	-	
Plus 6.8L	6068HF485	134 – 205 kW (180 – 275 hp)	VGT	Yes	
Plus 9.0L	6090HF485	168 – 298 kW (225 – 400 hp)	VGT	Yes	
Plus 13.5L	6135HF485	261 – 448 kW (350 – 600 hp)	VGT	Yes	

kW
hp

00375075100112150149200186250224300261350298400336450373500410550447600484650

PowerTech M

The simplest of the PowerTech family, these engines have 2-valve heads, fixed geometry turbochargers, and mechanical fuel systems. PowerTech M 4.5L engines are perfect for less demanding applications. Their mechanical controls are simple to operate and maintain.

PowerTech E

These engines also have 2-valve heads and fixed geometry turbochargers, but introduce full authority electronic controls and more sophisticated fuel delivery. These 4.5L and 6.8L engines use a high-pressure common-rail (HPCR) fuel system.

PowerTech Plus

Utilizing the most advanced engine technology, PowerTech Plus engines have a 4-valve cylinder head, full authority electronic controls, variable geometry turbocharger (VGT), and cooled exhaust gas recirculation (EGR). They are available in larger displacements (4.5L, 6.8L, 9.0L, and 13.5L) and provide ultimate performance and fuel economy.

Non-emissions certified industrial engine power ratings

PowerTech engine displacement	Engine model	Power ratings	Power range
2.9L	3029DF129	43 kW (58 hp)	
2.9L	3029TF129	52 kW (70 hp)	
4.5L	4045DF150	52 – 63 kW (70 – 85 hp)	
4.5L	4045TF150	67 – 86 kW (89 – 115 hp)	
4.5L	4045TF250	85 – 93 kW (114 – 125 hp)	
4.5L	4045HF150	104 kW (140 hp)	
6.8L	6068DF150	93 kW (125 hp)	
6.8L	6068TF150	94 – 127 kW (126 – 170 hp)	
6.8L	6068TF250	106 – 149 kW (142 – 200 hp)	
6.8L	6068HF150	143 – 157 kW (192 – 210 hp)	
6.8L	6068HF250	168 kW (225 hp)	
9.0L	6090HF475	172 – 286 kW (231 – 384 hp)	
13.5L	6135HF475	294 – 448 kW (394 – 601 hp)	

kW
hp

00375075100112150149200186250224300261350298400336450373500410550447600484650

PowerTech non-certified engines

John Deere offers a full range of non-emissions certified engines suitable for applications in countries that currently haven't established emissions regulations.

These simple, straightforward engines provide reliable operation and easy maintenance in rugged off-highway applications.



The John Deere difference

Proven Performance



Off-highway experience

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



Responsive power

John Deere engines respond to your every command and provide exceptional transient response.



Quiet operation

Machine operators experience low noise and vibration thanks to dynamically balanced crankshafts and balancer shafts in John Deere 4-cylinder engines.

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, steel pistons, and wet-type cylinder liners provide long engine life. John Deere engines are designed for rugged applications in remote regions.



Extreme conditions

Engines built to operate in hot and dry, sub-zero, and humid climates as well as high altitudes. The engine control unit (ECU) monitors and protects engine components in extreme conditions.

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



Monitor remotely

Watch over your engine and your equipment thanks to John Deere OEM Technology Solutions (PowerTech E only).

Efficient operation



Fuel efficiency

The efficient design of the John Deere combustion chamber with high-ring pistons helps deliver excellent fuel economy.



Life cycle costs

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

High resale values. John Deere engines are rebuildable for second and third life to factory specification with wet-sleeve liners.



Long service intervals

500-hour interval for oil and fuel filters and 6,000 hours for coolant.

Easy integration



Integration flexibility

With multiple parts options and various aftertreatment outlet and inlet choices, OEMs may have to do less modification to integrate John Deere engines. Easy configurability saves development costs and reduces delivery time to market.

Single-side service points make installation and maintenance easier.

Variable-speed power unit (VSPU) is available. Preconfigured cooling packages designed for 47°C (117°F) ambient air temperature provide ease of design and installation.



Simple technology

Straightforward engine technologies are easy to install and easy to maintain. Mechanical engine solutions are available up to 168 kW (225 hp).





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](https://www.johndeere.com/OEMWarranty) gives us the information needed to stock the right service parts, maintenance products, and servicing tools.

* When sold and installed by John Deere or its authorized dealers and distributors.
† 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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