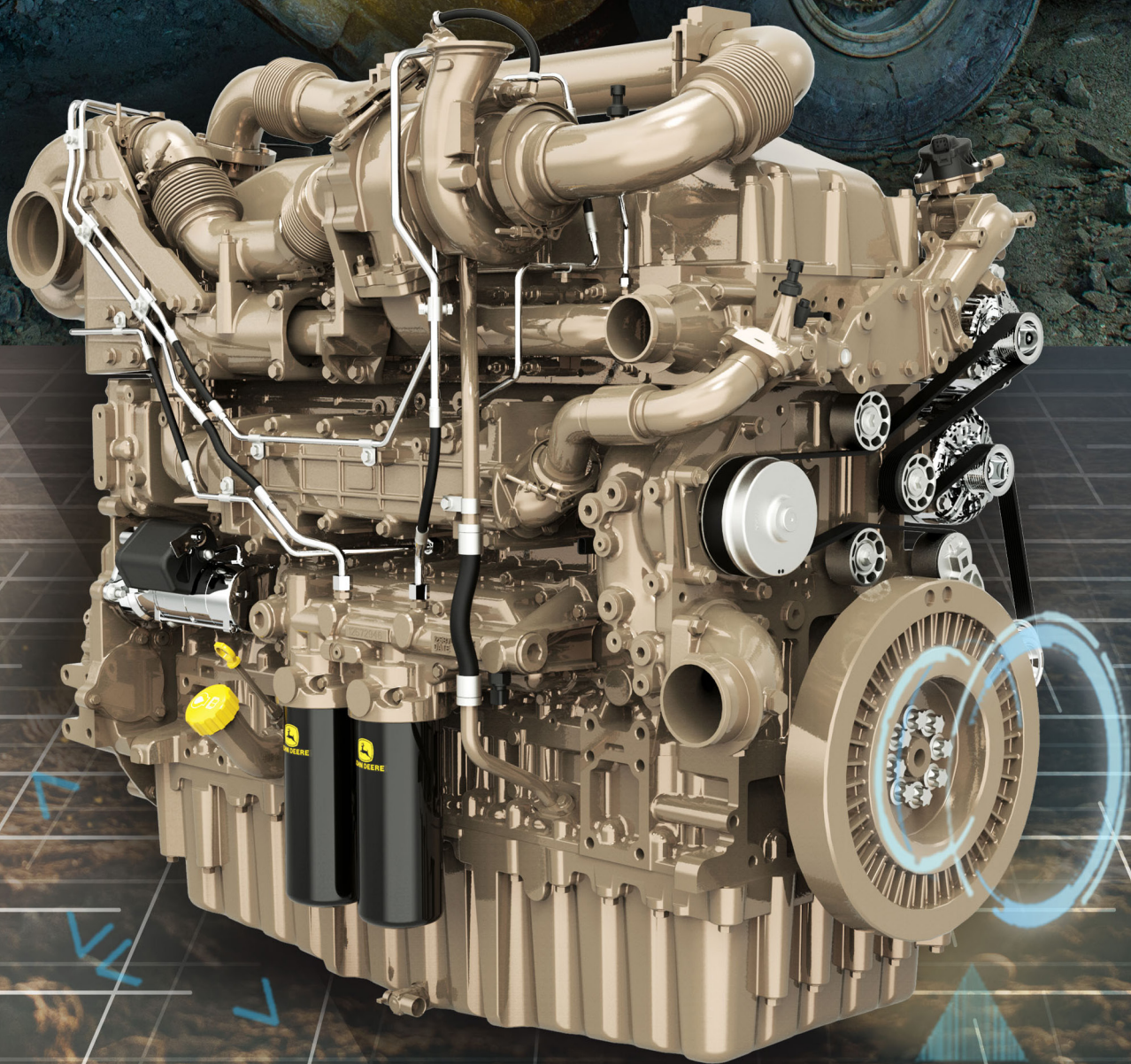


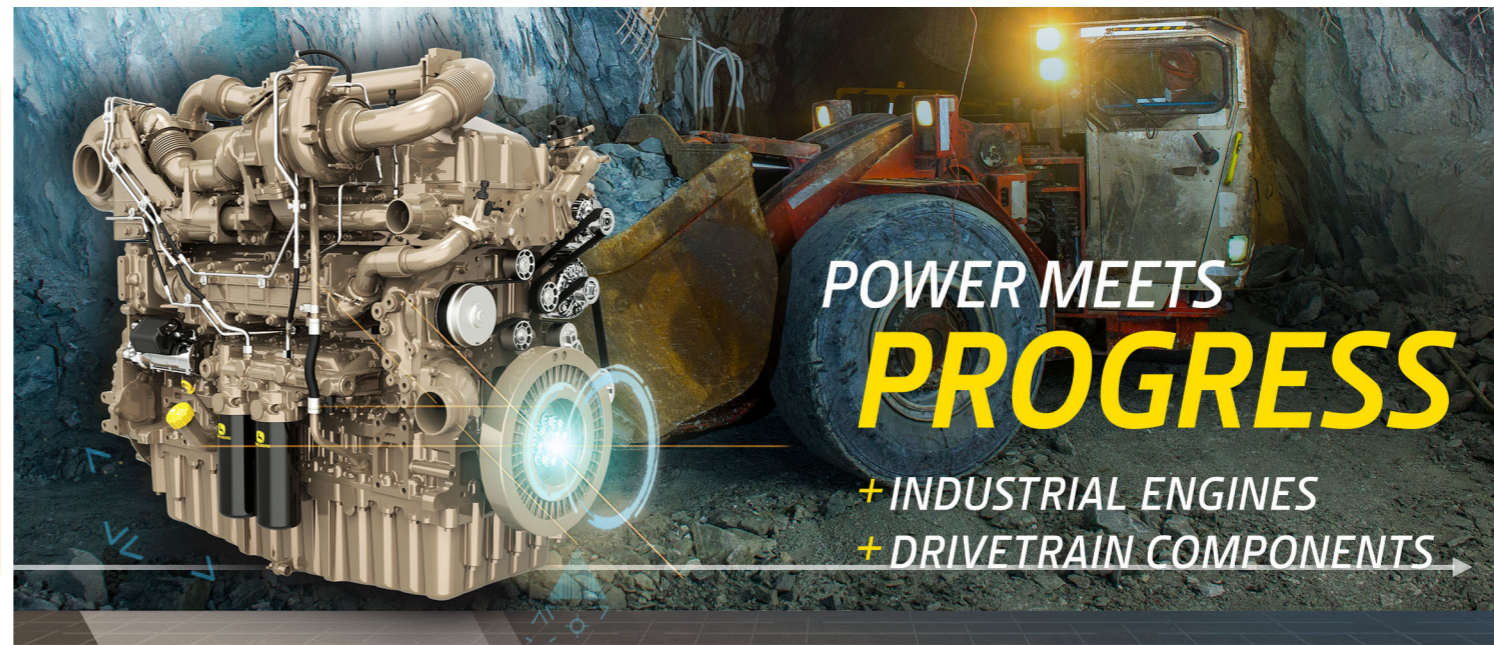
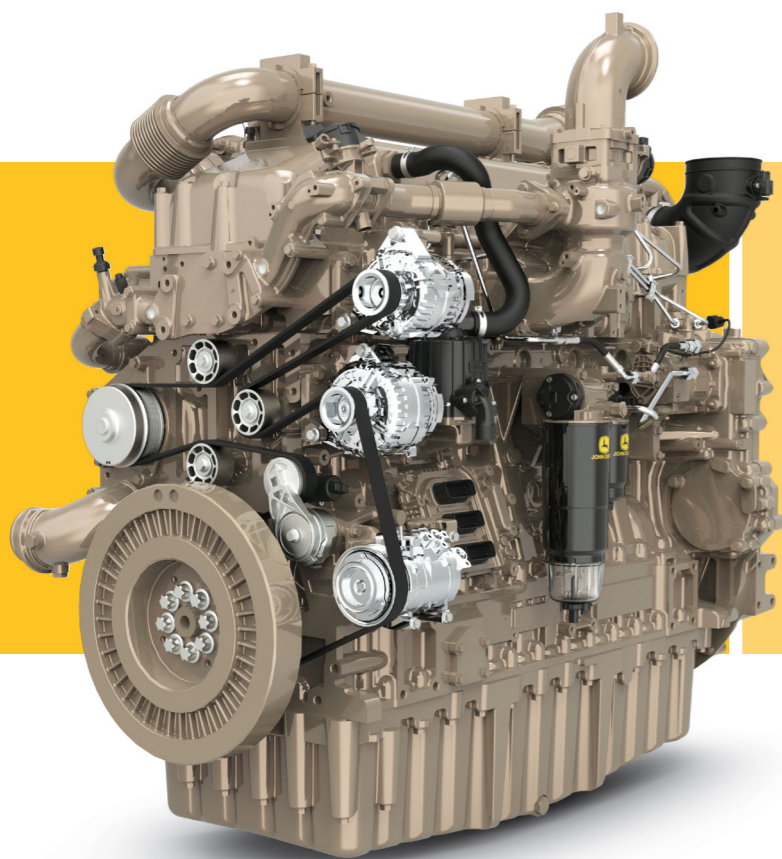
Industrial Off-Highway Applications



JOHN DEERE

POWER MEETS
PROGRESS





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POWER MEETS PROGRESS

John Deere's next-generation industrial engines are built from the ground up to deliver new levels of reliability, durability, flexibility, and serviceability.

OFF-HIGHWAY PERFORMANCE

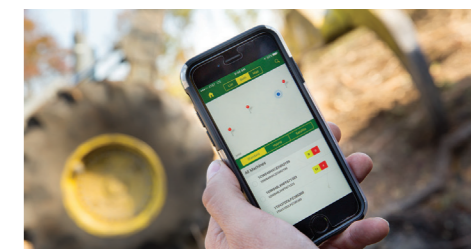
John Deere specialises in rugged off-highway applications. Built with heavy-duty components, top-liner cooling, steel pistons for maximum reliability, and wet-type cylinder liners for long-haul durability.

THE POWER OF CHOICE

John Deere offers a wide range of configurations and accessories so you can specify the right engine for your application. Preconfigured options and innovative technologies can help save hours of engineering time and help get machines to market faster.

CONNECTED SUPPORT

John Deere industrial engines can be protected by John Deere Connected Support™ remote monitoring and diagnostic services. With more than 9000 John Deere service locations worldwide, you never have far to go to find expert assistance and advice.



ULTIMATE UPTIME

Stock maintenance parts and many other common replacement parts are available to meet your service needs quickly and efficiently.

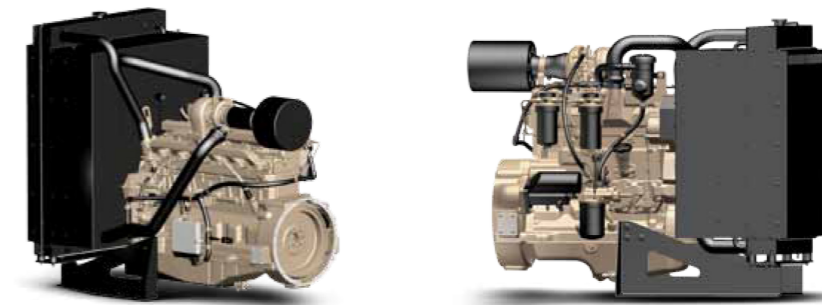




Generator Drives Stationary & Export Applications

PowerTech M
Output : 28 kW (38 hp) - 61 kW (82 hp)

PowerTech E
Output : 75 kW (101 hp) - 287 kW (384 hp)



EASY MAINTENANCE

John Deere design their engines to facilitate maintenance. The interchangeable wet sleeves enable better temperature control in the combustion chamber and optimize engine performance. They can be replaced on site without having to remove the engine, thus minimizing the machine's downtime and maintenance costs. By using helical-cut gears, engine noise is reduced along with maintenance costs. The crankshaft bearings, camshafts and cylinder heads are also interchangeable.

RELIABILITY

John Deere's sturdy, compact engine blocks are the basis of our products' longevity. But John Deere is also the guarantee of numerous technological assets, which themselves are synonymous with reliability. For example, the dynamically balanced moving parts, such as the track rod and crankshaft, make the engine quieter and limit vibrations, while the automatic belt tightener minimizes maintenance costs and increases belt life. In addition, several functions, such as the thermostat box and the intake air collector, have been built into the cylinder head to limit the risk of leakage.

EASY INSTALLATION

The engine is installed into the machine by using the engine block's front and side mounts. John Deere offer several options and variants in order to ensure their engines' perfect integration and guarantee easy access to the service points for the entire service life of the engine.

QUALITY

John Deere's continuing research and development efforts are the key to the constant improvement of their engines. The commitment to technology excellence and a rigorous manufacturing process are the best guarantees of each John Deere engine's precision. Performance, fuel efficiency, reliability and easy installation, in keeping with environmental standards, are the key words that characterize their engines.

GSPU model*	Engine Power Prime		Prime Ratings		Typical Generator Efficiency	Typical Fan Power	
	kW	hp	kVA	kWe**			
PowerTech M							
3029TFU80	1500 rpm	28	38	29 - 31	24 - 25	88 - 92	1.3
	1800 rpm	32	42	32 - 34	26 - 27	88 - 92	2.2
3029HFU80	1500 rpm	37	50	39 - 41	31 - 33	88 - 92	1.4
	1800 rpm	42	56	43 - 45	34 - 36	88 - 92	2.4
4045HFU81	1500 rpm	57	77	61 - 63	48 - 51	88 - 92	2
	1800 rpm	61	82	63 - 66	50 - 53	88 - 92	3.4
PowerTech E							
4045HFU82	1500 rpm	76	101	81 - 84	64 - 67	88 - 92	2
	1800 rpm	78	105	82 - 86	65 - 69	88 - 92	3.4
	1500 rpm	94	126	98 - 103	79 - 82	88 - 92	4
	1800 rpm	96	129	98 - 103	78 - 82	88 - 92	6.7
	1500 rpm	112	150	116 - 121	92 - 97	88 - 92	6
6068HFU82	1800 rpm	115	154	113 - 119	91 - 95	88 - 92	10.3
	1500 rpm	139	187	144 - 151	115 - 121	88 - 92	7.3
	1800 rpm	142	190	140 - 148	112 - 118	88 - 92	12.6
	1500 rpm	184	246	193 - 202	154 - 162	88 - 92	7.3
	1800 rpm	193	259	197 - 206	157 - 165	88 - 92	12.6
6090HFU84	1500 rpm	230	309	240 - 252	192 - 201	90 - 94	15.2
	1800 rpm	235	315	241 - 252	192 - 202	90 - 94	18.9
	1500 rpm	277	371	292 - 306	234 - 245	90 - 94	15.2
	1800 rpm	287	384	299 - 313	239 - 251	90 - 94	18.9



Generator Drives

Stage V & EPA Final Tier 4 Applications

CONFIDENCE IS BUILT IN

You can count on John Deere PowerTech™ generator drive engines to start in the morning, operate efficiently all day, and work reliably for many years. You also get the confidence of having the John Deere integration and support network at your side every step of the way.

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.

THE POWER OF CHOICE

Why build your gen-set around someone else's engine? With John Deere, you get a wide range of configurations and accessories so you can specify the right generator drive engine that best fits your application. Our preconfigured options can save you 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 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 also provides overnight delivery in most regions.

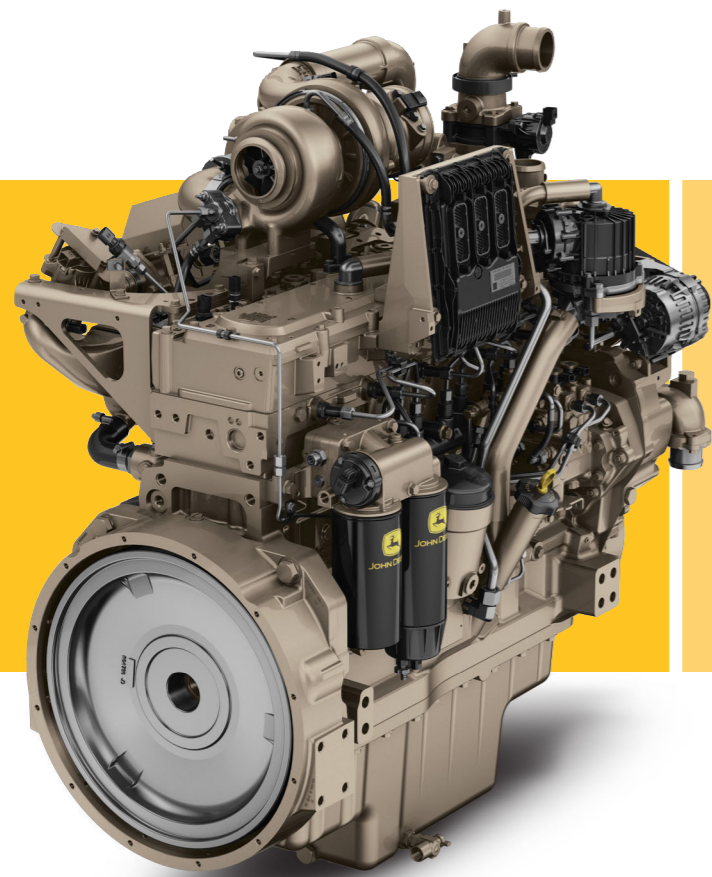
Node	PowerTech name/disp	Type	Engine Model	Power unit model*	Speed	Standby ratings			Prime ratings			Generator efficiency %	Fan power kW	Dual freq.	RoHS†
						kVA prime	kWm	kVA	kWe	kWm	kVA				
DOC and DPF aftertreatment															
30	EWX 2.9L	3 cyl.	3029HG530	3029HP530	1500	36	38	31	33	35	28	90	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	4045HG551	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.	6068HG551	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	6090CG550	1500	304	336	269	277	304	243	93	15.2	■	■
					1800	326	360	288	297	326	261	93	16.3	■	■
500	PSS 13.6L	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.

**EWS 4.5L is certified to Stage V only.

††Rating at 241 kWm is also available.



Variable Speed Export Applications

POWERTECH M - 2.9L & 4.5L Engines

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

FIXED GEOMETRY TURBOCHARGER

Fixed geometry turbochargers are sized for a specific power range and optimized to provide excellent performance across the entire torque curve. They are also designed to maximize fuel economy between the engine's rated speed and peak torque.

MECHANICAL UNIT PUMP (MUP) FUEL SYSTEM

This system uses camshaft-driven MUPs, connected to the injectors by a short fuel line. The short fuel line between the unit pumps and the injectors helps to alleviate after-injection, secondary injection, and other injection abnormalities (2.9L).

MECHANICAL ROTARY PUMP

The timing and fuel injection pressures are optimized to maximize performance and fuel economy at a given rated speed (4.5L).

2-VALVE CYLINDER HEAD

Cross-flow (4.5L) and U-flow (2.9L) head design provides excellent breathing from a lower-cost 2-valve cylinder head.

PowerTech M
Output : 56 kW (75 hp) - 74 kW (99 hp)

PowerTech E
Output : 63 kW (85 hp) - 149 kW (200 hp)

PowerTech Plus
Output : 111 kW (149 hp) - 448 kW (600 hp)

POWERTECH E - 4.5L, 6.8L & 9.0L Engines

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

FIXED GEOMETRY TURBOCHARGER

Fixed geometry turbochargers are sized for a specific power range and optimized to provide excellent performance across the entire torque curve. They are also designed to maximize fuel economy between the engine's rated speed and peak torque.

HIGH-PRESSURE COMMON-RAIL (HPCR) AND ENGINE CONTROL UNIT (ECU)

The HPCR fuel system provides variable common rail pressure, multiple injections, and higher injection pressures, up to 1,600 bar (23,000 psi). It also controls fuel injection timing and provides precise control for the start, duration, and end of injection.

2-VALVE CYLINDER HEAD

Cross-flow head design provides excellent breathing from a lower-cost 2-valve cylinder head.

4-VALVE CYLINDER HEAD

The 4-valve cylinder head provides excellent airflow (9.0L).

TURBOCHARGED

In turbocharged engines, the air is pre-compressed. Due to the higher pressure, more air is supplied into the combustion chamber, allowing a corresponding increase in fuel injection, which results in greater engine output (4.5L).

AIR-TO-AIR AFTERCOOLED

This is the most efficient method of cooling intake air to help reduce engine emissions. It enables an engine to meet emissions regulations with better fuel economy and the lowest installed costs.

COMPACT SIZE

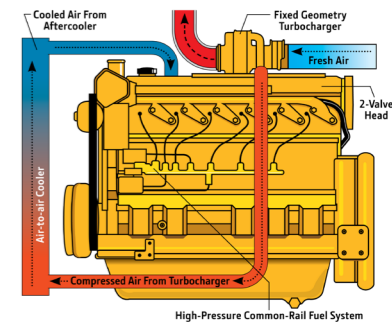
Mounting points are the same as previous engine models.

JOHN DEERE ELECTRONIC ENGINE CONTROLS

Electronic engine controls monitor critical engine functions, providing warning and/or shutdown to prevent costly engine repairs and eliminate the need for add-on governing components, all lowering total installed costs.

ADDITIONAL FEATURES

- Self-adjusting poly-vee fan drive
- Forged-steel connecting rods
- Replaceable wet-type cylinder liners
- Either-side service
- 500-hour oil change
- Gear driven auxiliary drive
- Optional balancer shafts (4.5L)



TURBOCHARGED

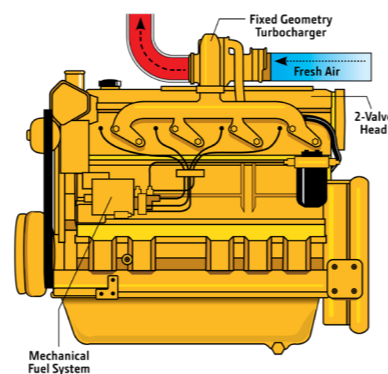
In turbocharged engines, the air is pre-compressed. Due to the higher pressure, more air is supplied into the combustion chamber, allowing a corresponding increase in fuel injection, which results in greater engine output.

COMPACT SIZE

Mounting points are the same as previous engine models.

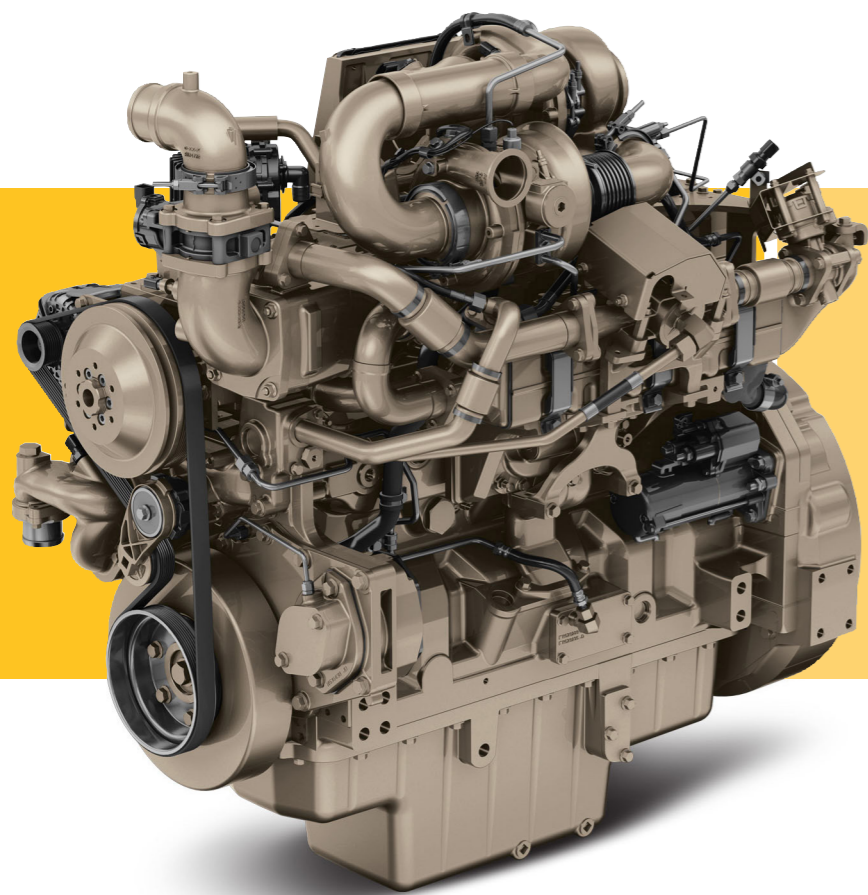
ADDITIONAL FEATURES

- Self-adjusting poly-vee fan drive
- Forged-steel connecting rods
- Either-side service
- 500-hour oil change
- Glow plugs (2.9L)
- Optional balancer shafts



Engine	Power Ratings
PowerTech M 4.5L	56 - 74 kW (75 - 99 hp)
PowerTech E 4.5L	63 - 104 kW (85 - 140 hp)
PowerTech Plus 4.5L	111 - 129 kW (149 - 173 hp)
PowerTech E 6.8L	104 - 149 kW (139 - 200 hp)
PowerTech Plus 6.8L	134 - 205 kW (180 - 275 hp)
PowerTech Plus 9.0L	168 - 298 kW (225 - 400 hp)
PowerTech Plus 13.5L	261 - 448 kW (350 - 600 hp)

kW 0 19 37 56 75 93 112 130 149 168 186 205 224 242 261 280 298 317 336 354 373 391 410 429 448
hp 0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600



Variable Speed

Stage V & Final Tier 4 Applications

THE RIGHT TECHNOLOGY FOR MAXIMUM PERFORMANCE

John Deere PowerTech Final Tier 4/Stage IV engines, 56kW (75hp) and above, are built on a proven platform of emissions control technologies including cooled exhaust gas recirculation (EGR), exhaust filters, and selective catalytic reduction (SCR). You can count on John Deere engines to deliver reliable power day in and day out, year after year, and in the toughest off-highway working conditions. John Deere Final Tier 4/Stage IV engines maintain power density, torque and transient response. It all adds up to more productivity, uptime, and value for your machines.

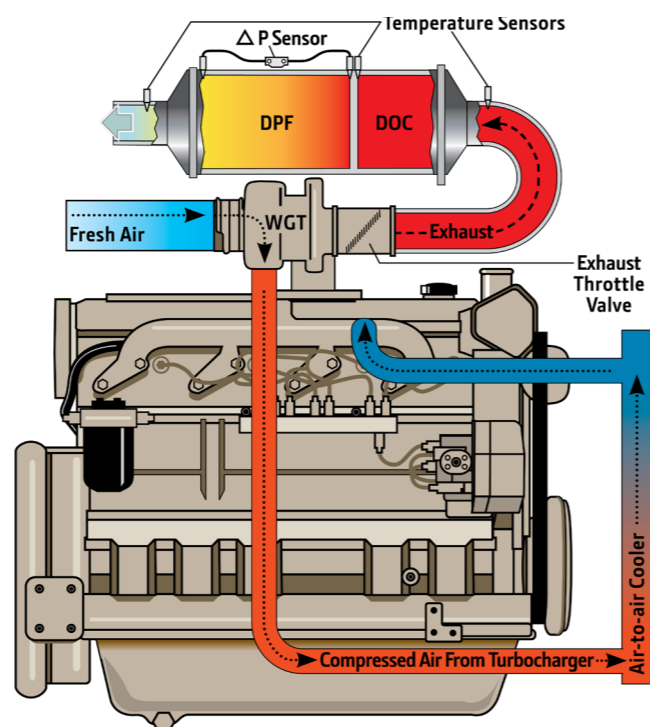
INTEGRATED EMISSIONS CONTROL SYSTEM

- Optimize solution utilizing the right combination of emissions-reduction components to maximise performance whilst meeting regulations.
- Specifically designed to meet the rigorous demands of off-highway applications.

POWERTECH EWX - 36kW to 55kW (48hp to 74hp) FORTHRIGHT PERFORMANCE AND RELIABILITY

Our straightforward PowerTech EWX 2.9L and 4.5L engines have 2-valve cylinder heads, high-pressure common-rail fuel systems, full authority

electronic controls, and proven exhaust filters. These compact, cost-effective engines blend advanced emissions control technologies with simple wastegated turbocharging to maintain transient response and peak torque in all operating conditions.



PowerTech EWX

Output : 36 kW (48 hp) - 55 kW (74 hp)

PowerTech EWS

Output : 86 kW (115 hp) - 104 kW (140 hp)

PowerTech PSS

Output : 93 kW (125 hp) - 448 kW (600 hp)

PowerTech PWS

Output : 63 kW (85 hp) - 104 kW (140 hp)

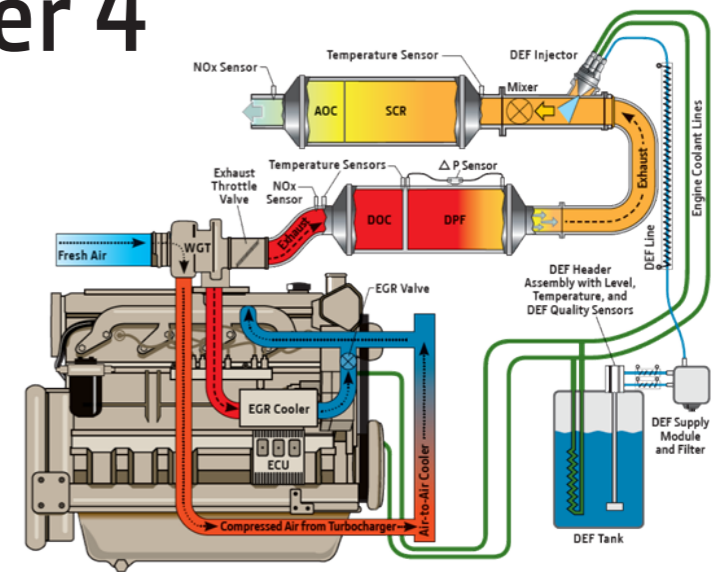
PowerTech PVS

Output : 104 kW (140 hp) - 187 kW (250 hp)

Stage V / Final Tier 4

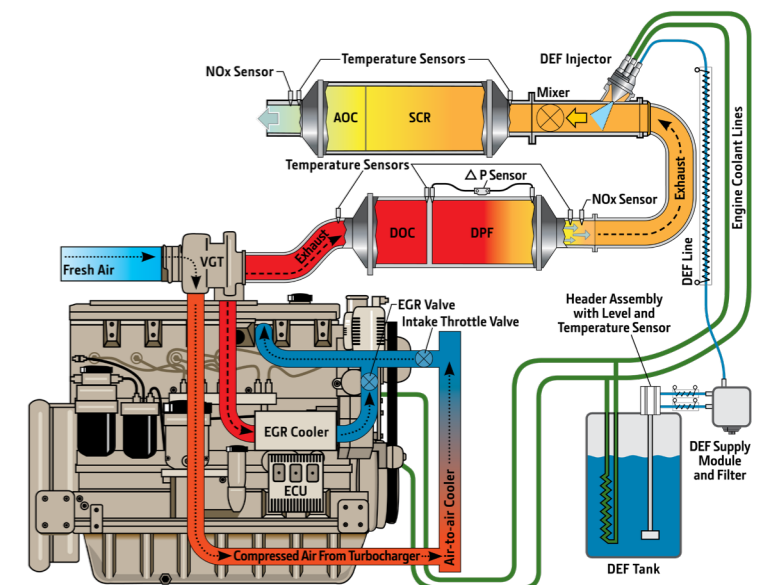
POWERTECH PWS - 63kW to 104kW (85hp to 140hp) UNCOMPROMISING POWER FOR ANY JOB

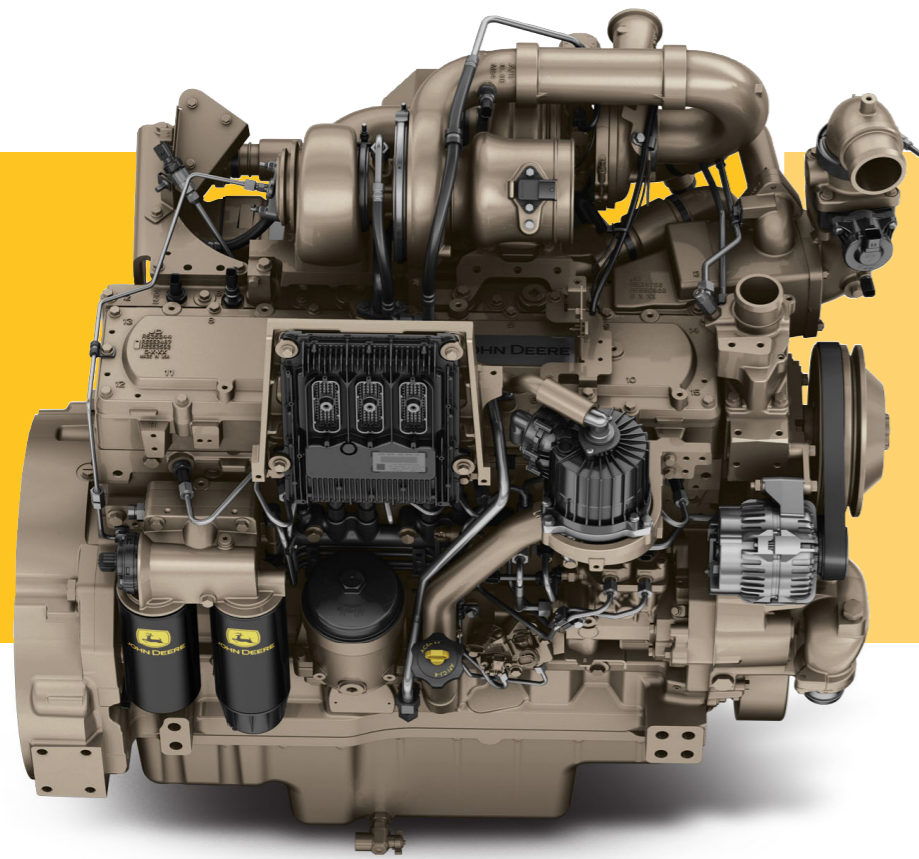
Our PowerTech PWS 4.5L engines deliver impressive power in a compact package. PWS engines combine advanced combustion technologies, enhanced engine calibration, and simple wastegate turbocharging. PWS engines feature PowerTech Plus technology with a DOC/DPF and an SCR system that reduce emissions while maximising performance.



POWERTECH PVS - 104kW to 187kW (140hp to 250hp) A STEP UP IN POWER AND FLUID ECONOMY

PowerTech PVS 6.8L engines provide reliable power for a wide range of applications. They utilize our proven PowerTech Plus technology with variable geometry turbocharged (VGT) and an optimized SCR system to improve combustion efficiency, reduce emissions, enhance performance, and improve fluid economy.

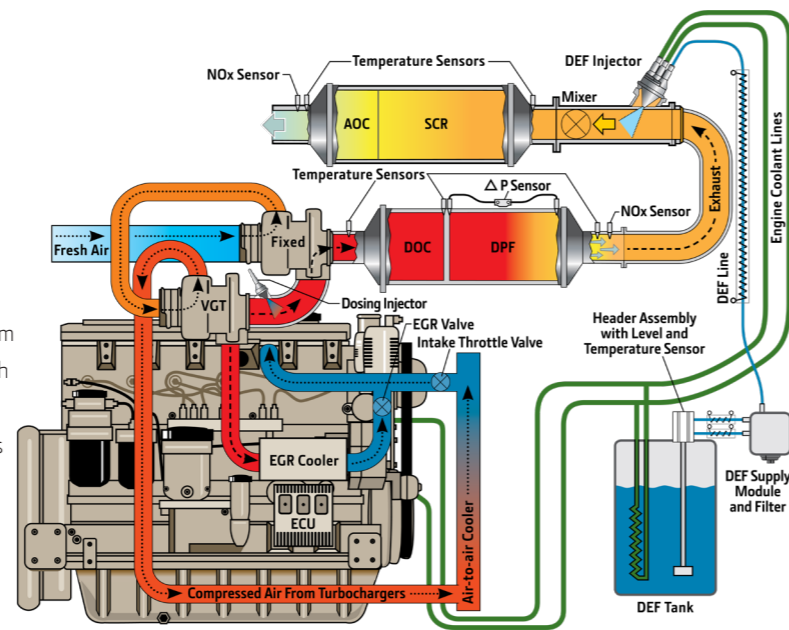




Stage V / Final Tier 4 Applications

POWERTECH PSS - 93kW to 448kW (125hp to 600hp) ULTIMATE PERFORMANCE AND RESPONSIVENESS

For ultimate performance in off-highway applications, PowerTech PSS 4.5L, 6.8L, 9.0L, or 13.5L engines can do almost any job. They can handle steep grades at high altitudes and deliver maximum transient response and low-speed torque. Along with proven PowerTech Plus technology and an optimized SCR system designed specifically for off-highway applications, all displacements feature series turbochargers that improve performance and responsiveness.



PowerTech PSS 9.0L and 13.5L engine configuration shown.

POWERTECH EWX

EWX engines are compact, powerful, cost-effective and simple to install without requiring cooled EGR or SCR. Our straightforward PowerTech™ EWX engines have 2-valve cylinder heads, high-pressure common rail fuel systems and full authority electronic controls. They use simple wastegate turbocharging to maintain transient response and peak torque in all operating conditions.

POWERTECH EWS

EWS engine meet performance and emission requirements without requiring cooled EGR. PowerTech EWS engine have 2-valve cylinder heads, high-pressure common-rail fuel systems and full authority electronic controls. They use simple wastegate turbocharging to maintain transient response and peak torque in all operating conditions.

Engine Name	Engine Model	Power Ratings	Turbo	Cooled EGR	Aftertreatment	Exhaust canister size	SCR size	Power range
EWX 2.9L	3029HI530	36 - 55 kW (48 - 74 hp)	WGT	-	DOC/DPF	2	-	
EWX 4.5L	4045TI530	55 kW (74 hp)	WGT	-	DOC/DPF	2	-	
EWS 4.5L*	4045HI551	86 - 104 kW (115 - 140 hp)	WGT	-	DOC/DPF/SCR	2	2	
PWS 4.5L	4045HI550	74 - 104 kW (99 - 140 hp)	WGT	Yes	DOC/DPF/SCR	2	3	
PSS 4.5L	4045CI550	93 - 129 kW (125 - 173 hp)	Series	Yes	DOC/DPF/SCR	3	3	
PSS 4.5L	4045CI551	116 - 129 kW (156 - 173 hp)	Series	Yes	DOC/DPF/SCR	4	4	
PVS 6.8L	6068HI550	104 - 129 kW (140 - 173 hp)	VGT	Yes	DOC/DPF/SCR	3	3	
PVS 6.8L	6068HI550	138 - 187 kW (185 - 250 hp)	VGT	Yes	DOC/DPF/SCR	4	4	
PSS 6.8L	6068CI550	168 - 187 kW (225 - 250 hp)	Series	Yes	DOC/DPF/SCR	4	4	
PSS 6.8L	6068CI550	187 - 224 kW (250 - 300 hp)	Series	Yes	DOC/DPF/SCR	5	5	
PSS 9.0L	6090CI550	187 - 242 kW (250 - 325 hp)	Series	Yes	DOC/DPF/SCR	5	5	
PSS 9.0L	6090CI550	261 - 317 kW (350 - 425 hp)	Series	Yes	DOC/DPF/SCR	6	6	
JD14P	6136HI550	300 - 410 kW (400 - 550 hp)	WGT	Yes	DOC/DPF/SCR	6	-	
JD14X	6136CI550	391 - 510 kW (525 - 684 hp)	Series	Yes	DOC/DPF/SCR	7	-	
JD18X	6180CI510	522 - 676 kW (700 - 907 hp)	Series	Yes	-	-	-	



POWERTECH PWS

PWS engines combine advanced combustion technologies, enhanced engine calibration and simple wastegate turbocharging. PWS engines feature PowerTech Plus technology with a DOC/DPF and an SCR system that reduce emissions while maximising performance.

POWERTECH PVS

PVS engines deliver more power, torque and fluid economy. They utilise our proven PowerTech Plus technology with variable geometry turbocharging, a DOC/DPF and an SCR system to improve combustion efficiency, reduce emissions, enhance performance and improve fuel efficiency.

POWERTECH PSS

PSS engines provide a powerful combination of power density, performance and fluid efficiency. For ultimate performance in off-highway applications, PowerTech PSS engines can handle almost any job. All displacements feature series turbochargers to deliver excellent performance and responsiveness. PSS engines feature proven PowerTech Plus technology that includes a DOC/DPF and an SCR system designed specifically for off-highway applications.



Up and Coming

JD4 Engine

JD4
Output : 63 kW (84 hp) - 120 kW (161 hp)

ENGINE PERFORMANCE

New to the John Deere engine lineup, the JD4 provides up to 120 kW (161 hp) of power. It features a rear gear train that offers customers low noise and higher PTO power. The engine also has an extended single turbo range and provides 700 Nm (516 lb-ft) of maximum torque for improved high-load capacity and productivity.

RELIABILITY AND UPTIME

The JD4 offers a more reliable diesel exhaust fluid (DEF) delivery system. The engine also features extended fluid service intervals of 750 hours (1,000 hours possible), reducing maintenance costs for customers. Hydraulic lash adjusters decrease valve wear and eliminate valve lash maintenance.

INCREASED AUXILIARY POWER

The JD4 engine offers up to two auxiliary drive pads, providing three times more available auxiliary power. This additional power allows flexibility and enables off-boarding for electrification and hybrid applications.

WORLDWIDE EMISSIONS COMPATIBILITY

The JD4 will be compatible with EU Stage IIIA – Stage V emissions levels through common interfaces. The engine is low-NOx-ready with planned external cooled exhaust gas recirculation (EGR) and a single overhead cam shaft valvetrain. The JD4 engine is also compliant with U.S. EPA Final Tier 4 and EU Stage V with no EGR.

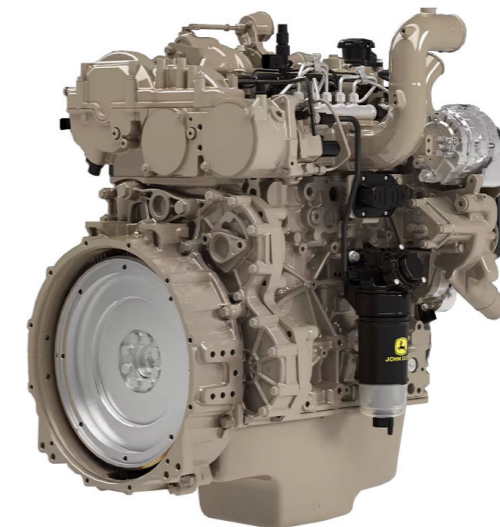
CUSTOMER VALUE

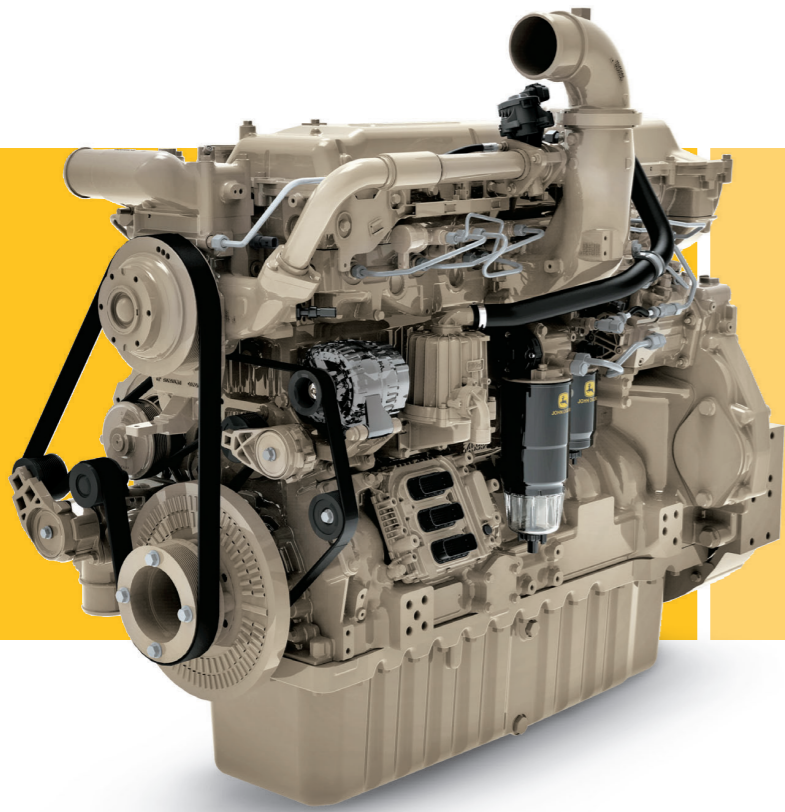
The JD4 offers a low purchase price and integration cost, with performance benefits that contribute to overall customer value.

COMPACT ENGINE PACKAGE

The JD4 features a 20% to 30% reduction in package size and a more than 100 kg (220 lb) reduction in weight compared to the John Deere 4.5L single turbo engine. This compact design gives customers improved visibility and fuel efficiency.

Performance Data	
Rated Power	63 – 120 kW (84 – 161 hp)
Rated speed	2200 rpm
Peak torque	700 Nm (516 lb-ft) @ 1400 – 1500 rpm
Low idle	800 – 1000 rpm
Off-level capability	35°/45°
Service interval	750 hours minimum
General Data	
Type	4-cylinder, in-line, 2-valve
Bore & stroke	99 x 128 mm (3.9 x 5.0 in)
Fuel system	Electronic high-pressure common-rail (HPCR)
Aspiration	Turbocharged, air-to-air aftercooled
Turbo	Wastegate
EGR	External cooled exhaust gas recirculation (EGR) (Stage III A/Tier 3 only)
Dimensions (L x W x H)	700 x 680 x 810 mm (28 x 27 x 32 in)
Weight	< 460 kg (< 1,014 lb)
Emissions level	EU Stage IIIA – Stage V, EPA Final Tier 4





Proven and Ready

JD14 Engine

JD14
Output : 300 kW (400 hp) - 510 kW (684 hp)

SOLID PERFORMANCE

The JD14 engine provides more power per litre than 13.5L configurations. With 14% higher power and 11% increased peak torque, it allows your machines to work faster, lift more, and operate more efficiently than ever before. This engine has been shown to increase harvesting capacity by up to 45% on John Deere X Series Combines.

The JD14 features a rear gear train that reduces noise by up to 3 decibels compared to the 13.5L engine. That's half as loud, greatly improving operator comfort.

EASY TO MAINTAIN. LOW SERVICE COSTS

John Deere engineers streamlined common maintenance steps on the JD14 engine. Hydraulic lash adjusters decrease valve wear and provide longer engine life while eliminating valve lash maintenance. An advanced control system analyses sensor data to keep operators working without interruption.

Prognostic capabilities are built into the engine to help users identify potential problems and schedule service prior to downtime.

Proven John Deere cooling packages are available with JD14 engines for easy, low-cost integration.

FIELD PROVEN

John Deere JD14 engines have been working more than 47,000 hours at high load in a variety of applications, including John Deere combines and sugar cane harvesters. Likewise, they've demonstrated more than 14,000 hours of torque and lugging power in tractor operations. So, when you install a John Deere JD14 engine in your application, you can be confident in the performance it delivers.

Many of these operating challenges were even more extreme than typically confronted in the field: repeating high to low loads to confirm thermal durability, block loading to show strength, and ultra-low idling to demonstrate oil pressure capabilities.

OPERATIONAL FLEXIBILITY

The compact JD14 engine is shorter and narrower to fit in more machines with minimal reconfiguration. It provides up to 130 kW (174 hp) through forward auxiliary connections and via an integrated rear SAE-C PTO. It has common connection points across different emissions configurations for the U.S. and Europe and is available in single-and dual-turbo configurations to maximise packaging flexibility.

Our durable inline aftertreatment provides unified packaging to reduce connection points and improve reliability. It is available with a DPF for Stage V applications and with no DPF for Final Tier 4 applications.

Performance Data	
Rated Power	300 – 510 kW (400 – 684 hp)
Rated speed	2100 rpm
Peak torque	3050 Nm (2250 lb-ft) @ 1550 rpm
Continuous rating	436 kW (585 hp)
General Data	
Type	6-cylinder, in-line, 4-stroke, water-cooled
Bore & stroke	132 x 165 mm (5.2 x 6.5 in)
Fuel system	Electronic high-pressure common-rail (HPCR)
Aspiration	Turbocharged, air-to-air aftercooled
Turbo	Single (fixed) or series (fixed, wastegate)
EGR	External cooled exhaust gas recirculation (EGR)
Dimensions (L x W x H)	1446 x 890 x 1366 mm (57 x 35 x 54 in)
Weight	1468 kg (3237 lb) single turbo 1521 kg (3353 lb) series turbo
Emissions level	EPA Final Tier 4/EU Stage V



Expanded Power

JD18 Engine

JD18
Output : 522 kW (700 hp) - 677 kW (908 hp)

JOHN DEERE POWER RANGE EXTENDED

New to the John Deere lineup, the JD18 extends the rated power range to 522 – 677 kW (700 – 908 hp).

UPTIME-FOCUSED CONTROLS

Improved John Deere model-based controls offer better diagnostic capabilities, enabling future prognostics and the ability to target the source of engine performance issues.

DESIGNED FOR EXTREME DURABILITY

The JD18 features a bedplate design, providing structural benefits for extreme durability. It is built for 20,000 hours of operation with the ability to be rebuilt two times.

SERVICEABILITY AND REPAIRABILITY

The JD18 engine was designed with ease of service and repair in mind. Hydraulic lash adjusters offer a maintenance-free valve train, eliminating the need to reset lash.

FLUID MANAGEMENT

The JD18 features new combustion technology which allows John Deere to offer an engine in the 522 – 677 kW (700 – 908 hp) power range without aftertreatment. Without the need for DEF, the customer has one less fluid to manage. The high-pressure common-rail (HPCR) fuel system allows the engine to deliver optimised fluid consumption. And the Diamond Like Coating (DLC) improves biodiesel compatibility and system robustness.

RELIABILITY THROUGH INNOVATION

The new combustion technology offers a simplified air system, with fixed and wastegate turbo's, allowing the engine to meet emissions requirements without applying aftertreatment. This feature provides simplified engine integration and a compact package size.

AUXILIARY POWER

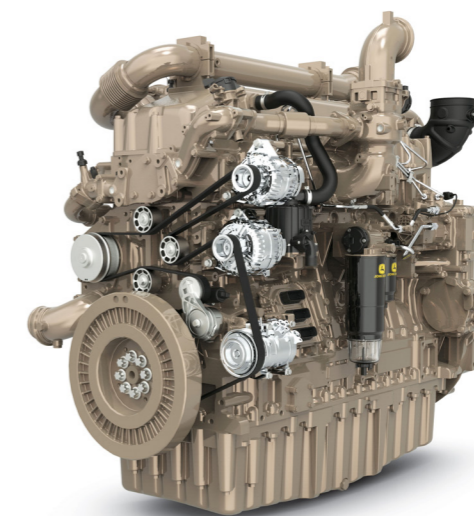
It features a rear gear train for excellent direct power and quiet operation. With options for up to two rear auxiliary drives, the JD18 produces a total of 902 Nm (665 lb-ft) maximum torque.

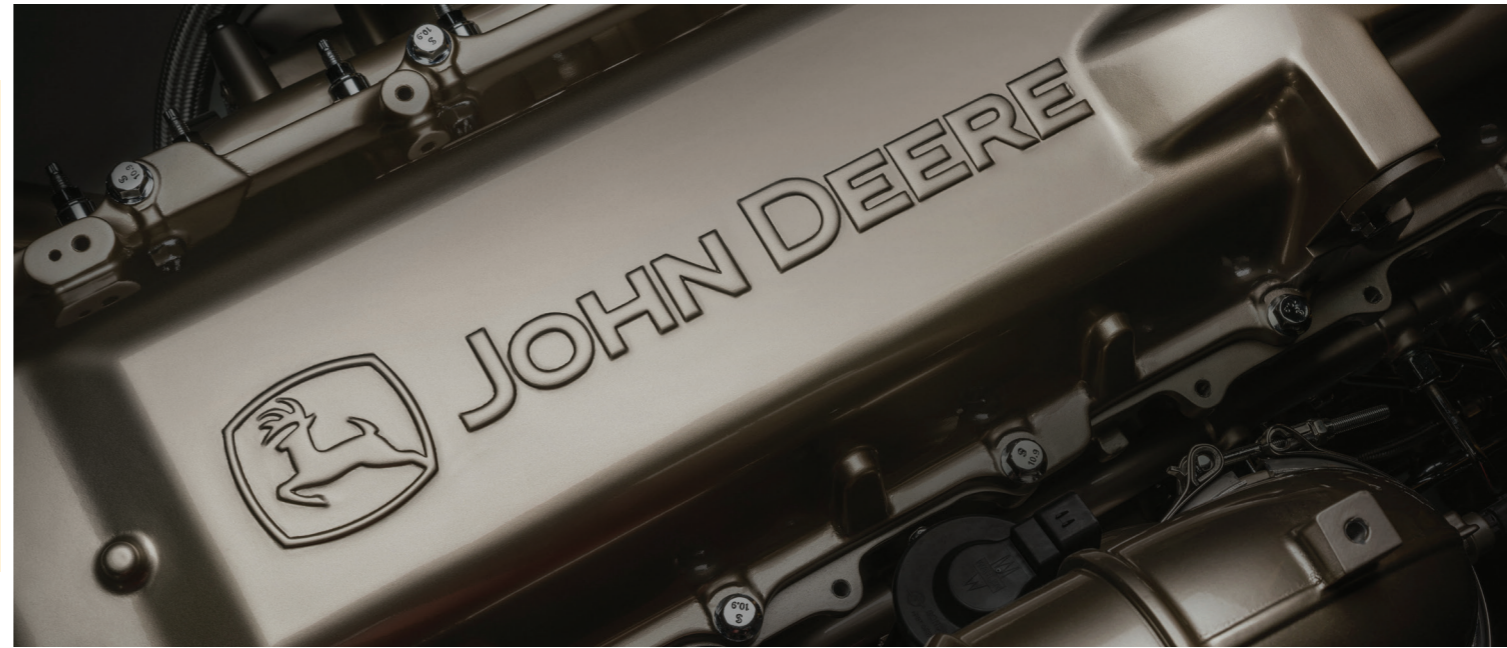
Performance Data

Rated Power	522 – 677 kW (700 – 908 hp)
Rated speed	1900 rpm
Peak torque	4250 Nm (3135 lb-ft) @ 1400 rpm
Low idle	800 rpm
Off-level capability	35°/45°
Service interval	750 hours

General Data

Type	6-cylinder, in-line, 4-stroke, water-cooled
Bore & stroke	148 x 174 mm (5.8 x 6.8 in)
Fuel system	Electronic high-pressure common-rail (HPCR)
Aspiration	Turbocharged, air-to-air aftercooled
Turbo	Series turbochargers (fixed, wastegate)
EGR	External cooled exhaust gas recirculation (EGR)
Dimensions (L x W x H)	1750 x 920 x 1507 mm (69 x 36 x 59 in)
Weight	2119 kg (4672 lb)
Emissions level	EPA Final Tier 4/EU Stage V





Engines and Engine Components

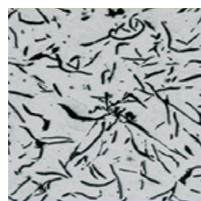
GENUINE JOHN DEERE PARTS - JOB-PROVEN PERFORMANCE

There's a reason why John Deere engines and equipment have such a strong reputation - quality. Other companies claim their repair parts meet or exceed OEM specifications for John Deere equipment. But the only real way to ensure performance is to use engine parts designed by John Deere for John Deere engines. Genuine John Deere parts and service restore the original quality and performance of your machines.

JOHN DEERE CYLINDER LINERS - PRECISE SPECIFICATIONS FOR AReason

Consistent microstructures of metals result in higher liner strengths. Inconsistent or random metal structures can lead to:

- Liner flaking
- Poor surface finish
- Lower overall performance.



Random and even graphite distribution



JOHN DEERE PISTONS - STRONGER FOR A REASON

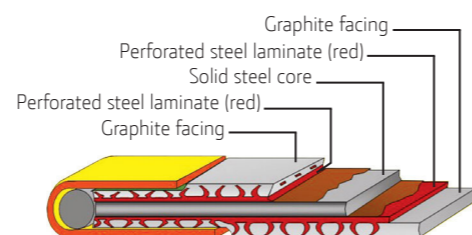
Improve your engine's reliability, durability and uptime. The fibre-reinforced bowl lip provides 50% higher fatigue strength. The design dissipates combustion heat more quickly.

The bore is offset from the centre to increase engine performance and service life by reducing vibration, mechanical stress and surface wear.



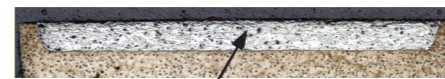
JOHN DEERE HEAD GASKETS - SUPERIOR DESIGN FOR A REASON

Five-layer design provides all-round performance. Two graphite layers provide surface sealing whilst two perforated steel layers internally bond the gasket together. A solid core provides support against high pressure.



JOHN DEERE PISTON RINGS - THICKER FOR A REASON

Wider phosphate coating saves you time and money. Longer life reduces premature replacements whilst increased thickness provides proper sealing after initial wear of the rings. Designed to last for the life of the power cylinder.



Phosphate coating

JOHN DEERE OVERHAUL KITS - DETAILED FOR A REASON



Our genuine John Deere kits include rod, main and thrust bearing, thrust washer, oil pan split gasket, factory assembled piston / liner kits, liner packings, front and rear seals, overhaul gasket sets and snap rings.

Viton lower packing material is used for longer life. Rear seals are made with Teflon wear surfaces to limit heat buildup and extend life. Cylinder liners are hardened to increase wear and provide longer engine life.

Expanded engine overhaul kits include the contents of the genuine John Deere overhaul kit plus rod bolts and bushings, piston pins and camshaft bushings and are available for many John Deere engines.

All John Deere overhaul kits come with a 1-year / 1500 hour warranty.

JOHN DEERE CAMSHAFTS - SMOOTHER FOR A REASON

John Deere cam lobes increase performance and reliability. They provide proper valve opening and closing to deliver optimal combustion. The lobe taper design reduces wear and valve acceleration prevents valve and valve seat damage.



JOHN DEERE EXHAUST FILTERS - GENUINE FOR A REASON

Protect your engine and the environment with genuine service parts for John Deere exhaust filters. They are designed to meet the demands of rugged off-highway applications and integrate seamlessly into the vehicle / application to achieve optimum performance. John Deere exhaust filters are serviced using three main components that are sized based upon engine model.

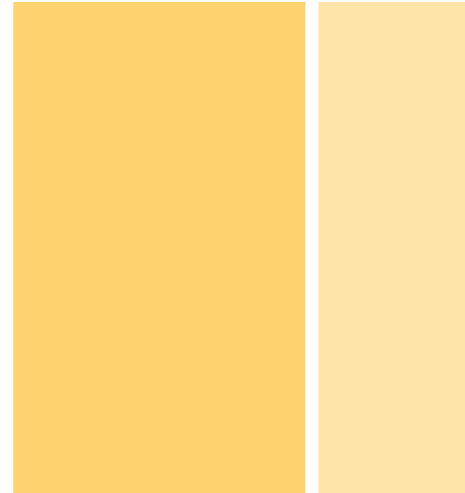


DON'T FORGET THE ENGINE DAMPER

When torque is applied, engines generate harmful vibrations. A damper reduces vibrations, which extends belt life and reduces gear wear. Our engine damper consists of an inertia ring, elastic member and hub assembly attached to the crankshaft.

John Deere recommends changing the damper whenever an overhaul or engine replacement is performed.





Maintenance Coolants & Oils

ENGINE FLUID ANALYSIS

Monitoring fluid condition is critical for detecting any abnormalities that may contribute to poor performance and costly repairs.

Consistent fluid sampling generates valuable data for trend analysis. If something is out of range, determine the root cause of the abnormality and take root action to address it. This prevents premature and catastrophic failure, saving money and downtime in the long run.

JOHN DEERE COOLANTS

Cool-Gard™ II is a fully formulated coolant/antifreeze that delivers premium protection. It protects against corrosion, cavitation, rust and scaling. Meets cooling demands of advanced engine technology in all liquid cooling systems and is compatible with all liquid-cooled engines. 6-year / 6000-hours service life and nitrate free.

JOHN DEERE OILS

Plus-50™ II premium engine oil is designed to provide advanced lubricants performance in all current diesel engines, including today's modern low-emissions engines, as well as all legacy diesel engines. Plus-50 II is designed to meet the requirements of heavy-duty off-highway applications and light-duty applications, including on-highway vehicles. Plus-50™ II premium engine oil provides these distinct advantages:



- Formulated specifically to inhibit oxidation, deposit, corrosion, and wear with superior soot control.
- Excellent low-temperature fluidity reduces engine wear in cold weather.
- Exceeds API CJ-4 and ACEA E9 performance level for diesel engines.
- Drain intervals may be increased to a total of 500 hours when used in John Deere engines with John Deere oil filters and extended drain oil pan.
- Plus-50™ II is a premium lubricant that provides exceptional performance and protection in non-John Deere engines; follow OEM recommendations for extended service intervals to achieve maximum value.

We strongly recommend that all John Deere IT engines use Plus-50™ II (CJ-4/E9) oil to ensure optimal performance, including extended drain interval options.

Plus-50™ II may be used as a full fleet solution with use in Mack, Cummins (15W40), Mercedes Benz, Volvo, MAN, MTU, Detroit Diesel (15W-40), Renault, and Caterpillar engines. John Deere is not affiliated with these companies.

JOHN DEERE FUEL CONDITIONERS

Our diesel fuel conditioners are factory-designed and approved to improve the performance in any diesel-powered equipment. Available in summer and winter formulas, they can be used with diesel or biodiesel blends to B20.



FUEL-PROTECT SUMMER/WINTER

- All diesel types, including biodiesel up to B20.
- Detergents.
- Lubricity improver.
- Cetane improver.
- Water control.
- Cold temperature operability (winter)

FUEL-PROTECT KEEP CLEAN

- Aggressive detergents clean and keep injectors clean.
- Helps prevent the formation of stubborn deposits that may cause injector sticking, engine misfire, rough idling, excess exhaust smoking,

power less and/or hard starting conditions in modern high-pressure diesel fuel systems.

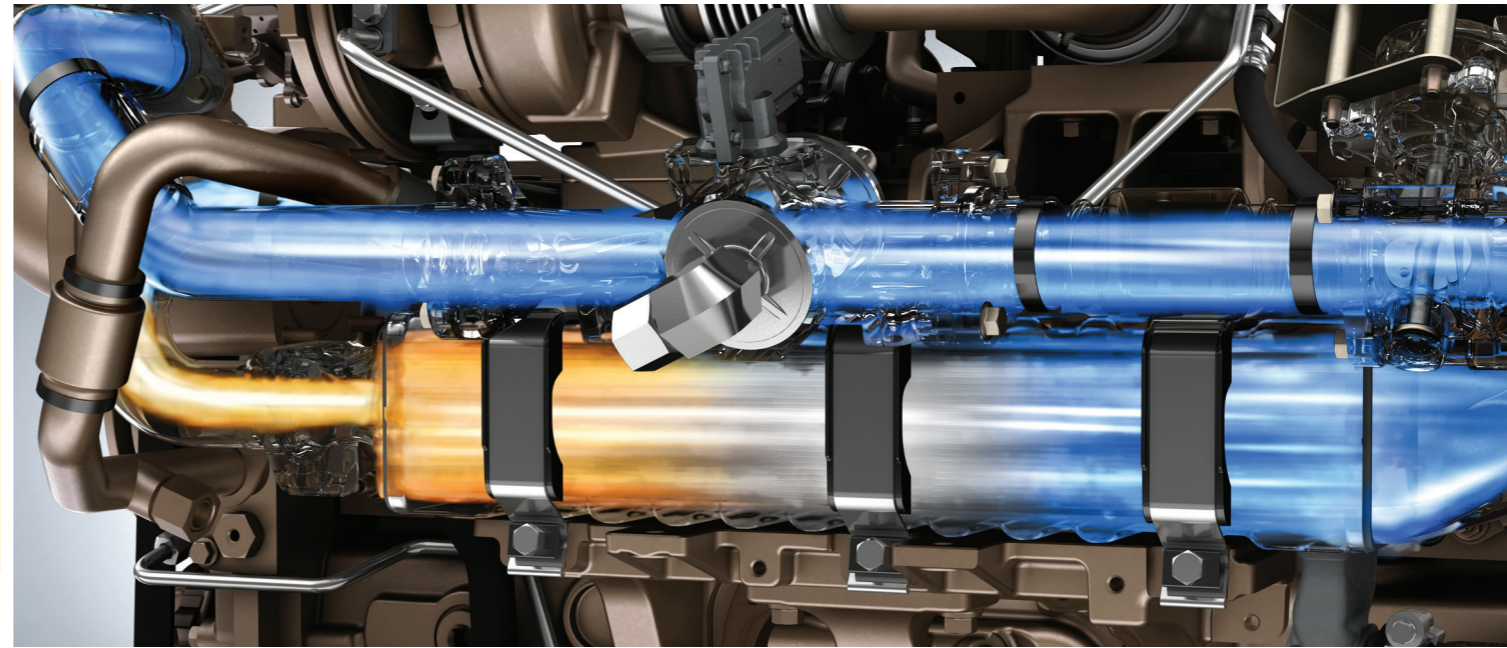
- May be used in all makes of diesel engines to clean and prevent persistent deposits caused by ultra-low sulphur diesel in high-pressure fuel systems.
- Blends and stays distributed in bulk fuel tanks for easy distribution across the entire fleet.
- Can be used with John Deere fuel conditioners.

FUELSAVER™

FUELSAVER, a Dow Chemical product from John Deere, is an effective antimicrobial agent and an EPA-approved biocide and fuel additive for today's biodiesel and ultra-low sulphur fuels.

- 100% fuel soluble so the active ingredients kill microbes throughout all components of a fuel system.
- Maintains fuel economy and decreases fleet operation costs.
- Add to new fuel tanks to prevent contamination.
- Contaminated fuel tanks require a shock dose.
- For each subsequent tank, a maintenance dose is recommended.





Maintenance Filters, Filtration & Grease

FUEL FILTERS

Genuine John Deere fuel filters capture harmful debris and moisture before they can cause damage to fuel-system components. These top-quality filters are designed by John Deere for John Deere fuel systems.

- Proper airflow ensures a minimum flow restriction while capturing more contaminants than leading competitive air filters.
- A tight seal keeps contaminants from bypassing the filter.

ENGINE OIL FILTERS

- Robust construction for airtight seal.
- Advanced cellulose media for maximum filtration performance.
- High-grade seals and components provide superior durability and corrosion protection.
- Proprietary flow technology for optimum particle and water removal.

AIR FILTER

- Reduced fuel consumption.
- Increased horsepower.
- Longer service life.
- Even pleats and more media ensure high efficiency and a longer service interval.



FUEL STORAGE FILTRATION

It's very important to employ adequate filtration on fuel storage and transportation tanks, and John Deere bulk fuel storage tank filters perform exceedingly well. It is also necessary to replace the filter element in fuel storage and transport tanks at least once - preferably several times- each year. John Deere fuel filters always provide high-quality fuel system protection.

BULK FUEL STORAGE FILTRATION

- Bowl and element style.
- Spin-on cartridge style.
- Both fuel and fuel/water separator filters.
- 5 to 100 gpm (20 to 380 lpm).
- 5 to 30 micron.
- Differential pressure gauge available.

JOHN DEERE GREASE

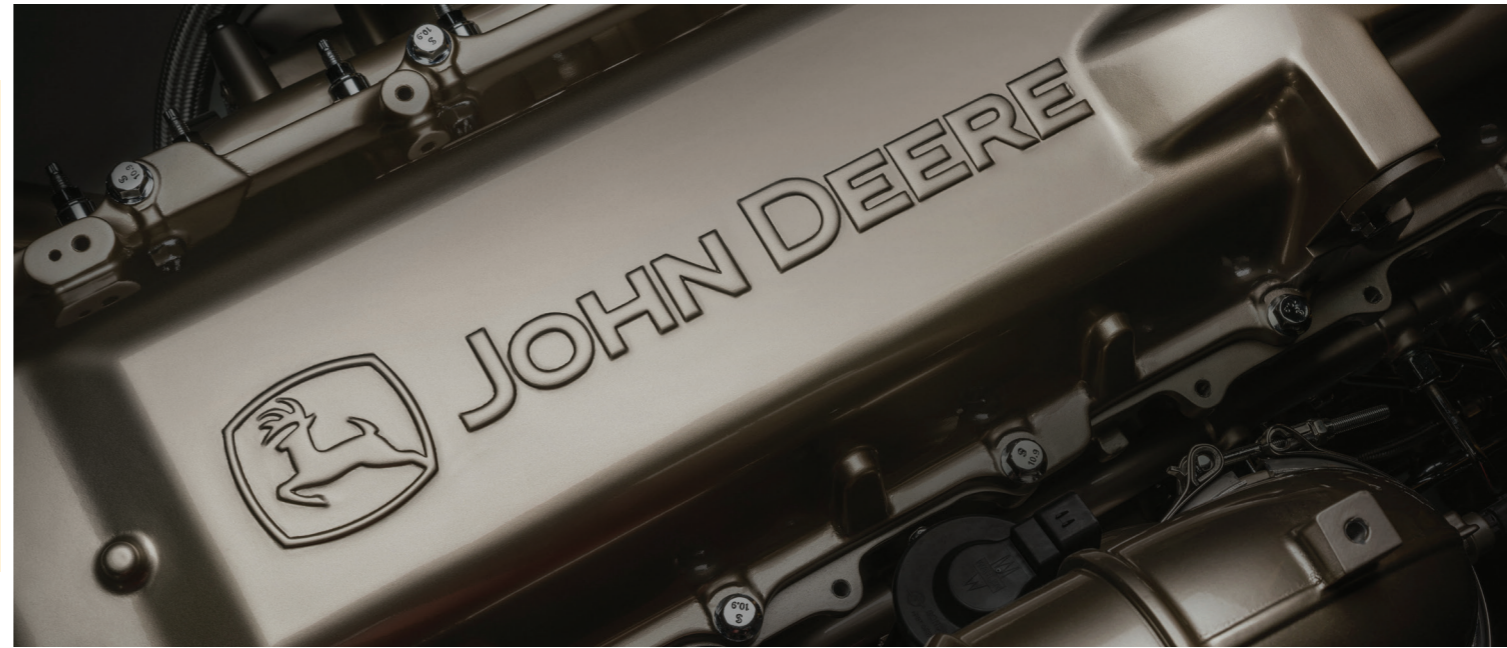
John Deere grease provides several different functions and features simultaneously.

- Lubricates moving parts to prevent wear.
- Protects components from corrosion.
- Flows under all temperatures to protect moving parts.
- Remains intact and in place under severe pressures or shock loads.
- Helps seal and keep foreign contaminants out of lubrication points.
- Cools protected parts.
- Remains in place and continues to lubricate when exposed to water.

TYPES OF GREASE

- Multi-Purpose SD Poly urea.
- Multi-Purpose Lithium.
- Special-Purpose Corn Head.
- Special-Purpose HD Moly (3%).
- HD Lithium Complex.
- Special-Purpose HD Water-Resistant.
- Multi-Purpose Extreme Duty Synthetic.





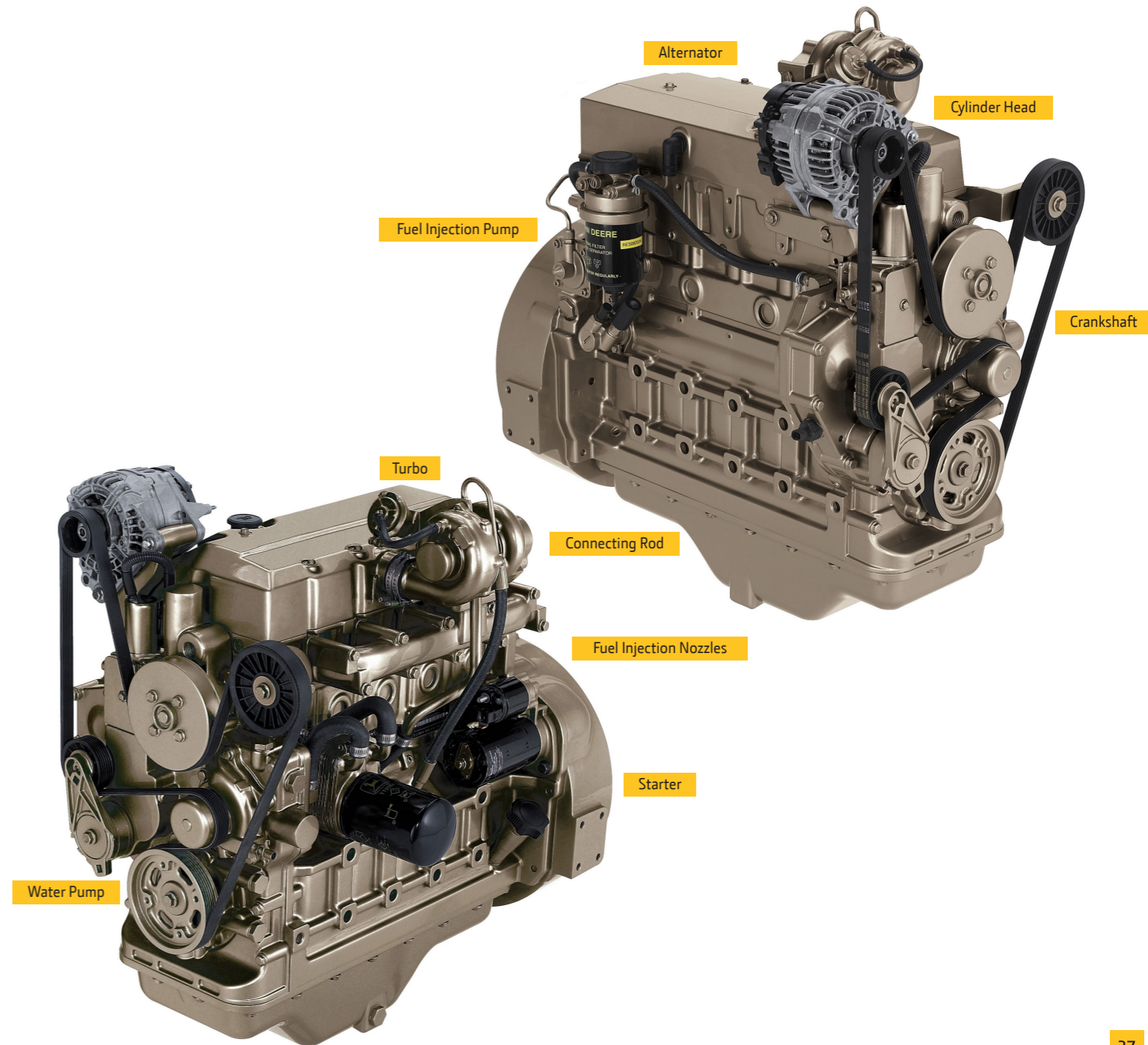
John Deere Reman Parts

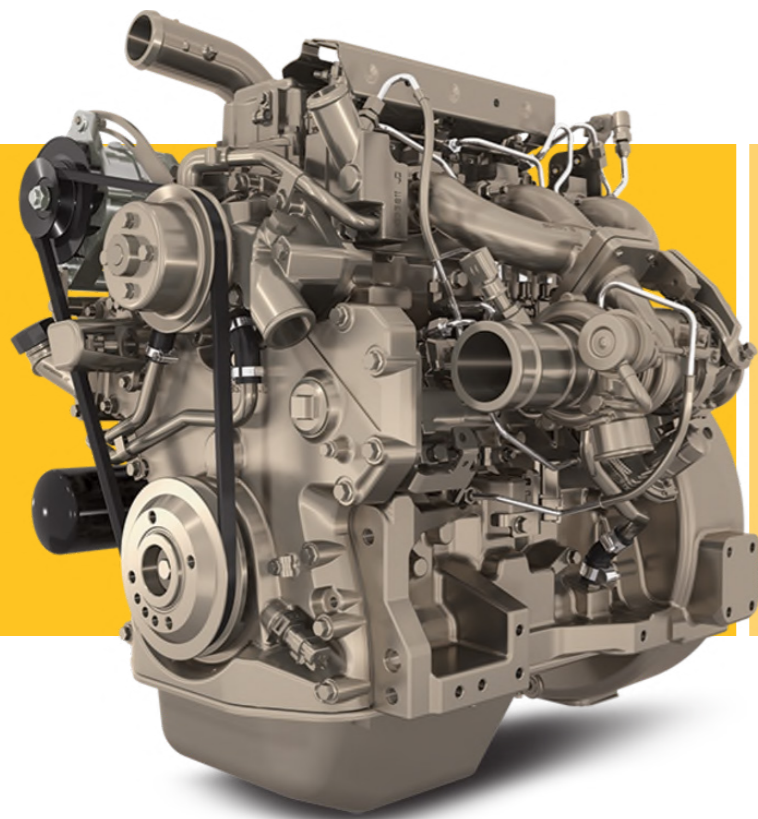
JOHN DEERE REMAN PARTS DELIVER RELIABILITY AND PERFORMANCE

With John Deere remanufactured engines and components, you can rest assured you're getting like-new performance and the highest level of quality and reliability. That's because they're remanufactured to John Deere's original specifications and standards, using only genuine John Deere-approved parts and John Deere-engineered manufacturing process.

STRINGENT REMANUFACTURING PROCESS ENSURES QUALITY EVERY STEP OF THE WAY

Whether it's disassembly, building or testing, you can be assured each and every John Deere Reman fuel injector pump is fully remanufactured - not simply rebuilt or repaired. The result is a product that will provide you like-new performance at a competitive price. The same goes for John Deere Reman water and oil pumps, turbochargers, cylinder heads, crankshafts and connecting rods.





Engine Accessories

ENGINEERED TO MEET A WIDE RANGE OF APPLICATION CONDITIONS

John Deere engine accessories and trim kits are designed to fit a wide range of engines, models, and applications. This interchangeability lets John Deere engine distributors and OEMs assemble complete engine packages quickly and efficiently. And it offers more selection and component availability for you and your customers.

You can count on John Deere engine accessories to get the job done in agricultural, construction, forestry, mining, generator drive, marine, and other off-highway applications.

PROVEN TO SAVE DEVELOPMENT TIME AND SATISFY EMISSIONS REGULATIONS

Because all engine accessories and parts are qualified by John Deere, you know they will work seamlessly. That means you can integrate our engines into your machines with shorter program lead times and fewer engineering requirements. Our application engineering team stands ready to help you integrate John Deere engines into your equipment.

SOLID JOHN DEERE WARRANTY

OEMs tell us strong warranty support is one of the best reasons to install and use John Deere engine accessories. John Deere parts and accessories added to new products by John Deere engine distributors or authorized OEMs are covered under the standard or extended product warranties for

our engines. This dependable support provides an extra level of confidence as your equipment goes to work in rugged and critical applications.

FULLY SUPPORTED NETWORK

Whether you need a complete engine package or an individual part, you can get fast service and support from your John Deere engine distributor or any of our 4,000+ service dealers around the world.

COOLING AND FAN SYSTEMS

Preconfigured cooling packages with a charge air cooler (CAC), radiator, and shroud for fan guard protection are available for John Deere engines.

John Deere cooling packages are designed for debris tolerance, vibration capability, air temperature rise to the cooling core, and ambient conditions in a wide range of stationary and mobile applications.

CAC and radiator cores are mounted side by side for the greatest heat rejection efficiency, to minimize fan air pressure drop and allow use with either suction or blower fans. Shrouds are designed to provide adequate depth for good fan airflow distribution, and provide adequate fan tip clearance while preventing minimal loss of airflow to the cooling core.

John Deere does the up-front work to streamline integration into your equipment. Our cooling packages are qualified in a matching power unit and verified in a test cell to work in a range of

applications. And John Deere keeps working long after your equipment leaves your manufacturing facility — providing customers with convenient parts, service, and warranty support.

COOLING PACKAGE ISOLATOR KIT

Rubber mount between cooling package and machine helps reduce vibration and improve durability.



HOSE AND TUBE KIT

Routes coolant to radiator and air from charge air cooler. Kits available for every combination of engine, model, and cooling package. Includes all hoses, tubes, and brackets needed to mount the cooling package to the engine. Reduces OEM engineering and installation time.



SURGE TANK KIT

Various surge tanks with pressure caps meet your full range of application needs. Translucent sides provide easy visual inspection. Level warnings can be displayed on instrument gauges for electronically controlled engines.



BELT GUARD KIT

John Deere belt guard kits provide protection from moving parts such as fans, crankshafts, and engine belts. Designed to minimize restriction of airflow and interference with other components. Sized to fit most combinations of engine, model, and cooling package.





FAN OPTIONS

A range of fan sizes and ratios in both fixed-speed and variable-speed configurations allow OEM engineers to easily specify a fan system for optimal airflow. John Deere fan systems are designed to provide the needed fan speed for coolant, engine air, and hydraulic temperature control.

VARIABLE-SPEED FANS

John Deere variable-speed fans cool with a steady flow of benefits. They improve engine performance, fuel economy, and sound levels, while reducing OEM engineering time. Variable-speed fans are available on John Deere Interim Tier 4/Stage III B off-highway and gen-set diesel engines 56 kW (75 hp) and above. They are designed to work as a fully integrated solution with John Deere cooling packages. The ECU-controlled variable-speed fan adjusts to engine speed, load, and ambient conditions to ensure that the cooling system performs throughout the engine's operating range.

- Reduces fan noise. Slower fan speed significantly reduces noise levels and improves operator comfort.
- Increases fuel efficiency. According to JDPS data, a variable-speed fan drive reduces power requirements and fuel costs.
- Reduces design time required for cooling packages because the fan speed automatically adjusts to keep the charge air cooler outlet air at the required temperature to meet emissions regulations.
- Improves engine/vehicle warm-up and cold-weather performance by reducing the amount of cold air circulated in lower ambient

temperatures. Eliminates over-cooling and the need or shutters in some applications.

- Extends the life of the cooling package and fan-drive components. Less debris entering the system reduces external wear on the radiator, charge air cooler fins, air conditioning condenser, and hydraulic oil cooler. Slower fan operation also increases life of the fan belt, pulleys, and bearings.

VARIABLE-SPEED FAN EXTENSION HARNESS

Available as an option on certain models to connect the variable-speed fan harness to the main engine harness.

VARIABLE-SPEED FAN SIZES

Available in nine sizes (560 to 1000 mm) for suction or blower applications.

FAN SPACER

Fan spacers are provided for varying engine installations to ensure correct fan position in the shroud. They are matched to the engine mounting bolt hole pattern and pilot. Fan spacer lengths are sized to match suction or blower fan types.



FAN CLUTCH KIT

Clutches (12 volt and 24 volt) are matched to each fan size. Control algorithms are pre-programmed into the ECU for each fan size and clutch combination.



EXHAUST SYSTEMS

John Deere offers exhaust system bellows, isolators, and brackets for engines with remote-mounted aftertreatment devices. All mounting kits are designed to make installation quick and easy with minimal OEM engineering. Mufflers are available when aftertreatment devices are not required. John Deere engines with an engine-mounted aftertreatment device are paired with their exhaust system at the factory, and include all necessary components.

EXHAUST BELLOWS KIT

Installed between the turbocharger outlet and the exhaust filter inlet to absorb and isolate vibration and motion. Available in 3-, 4-, and 5-inch sizes. Includes clamps and gaskets. Bellows come with full Marmon connections on both ends to reduce tooling required by the OEM.



EXHAUST FILTER ISOLATOR KIT

Isolates the filter from high frequency engine vibration and application movement. Made of an elastic material designed to withstand high temperatures.

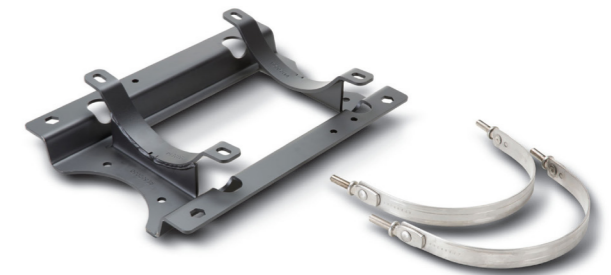


MUFFLER

Mufflers are available at varying levels of sound attenuation. Can be installed in horizontal or vertical configurations.

EXHAUST SYSTEM MOUNTING BRACKET KIT

Compatible with a wide range of exhaust system inlet and outlet configurations.





INSTRUMENT PANELS & WIRING

John Deere instrument panels give you plug-and-play convenience with installation flexibility for mechanical and electronic engines. Our ready-made solutions talk to the engine control unit (ECU) and aftertreatment system to monitor, control, and display important engine information.

Instrument panels come with a key switch, ramp throttle switch, and associated wiring. They are easily adapted for a range of throttle configurations. All panels are available with an enclosure and isolation mounts for easy application by OEM engineers and easy service by John Deere dealers.

We offer both standard and premium software packages to help you take advantage of the full potential of engine accessories. Contact your John Deere dealer or engine distributor for more information.

COMPLETE INSTRUMENT PANEL

Available as a basic instrument panel with a full-featured diagnostic module, key switch, and enclosure. Also available with standard or premium 2-inch gauges that display engine operating conditions such as oil pressure, coolant temperature, and engine speed.



FULL-FEATURED DIAGNOSTIC MODULE

Dual-capability gauges interpret diagnostic warnings/fault codes and display engine operating conditions. Provides installation flexibility for OEMs providing their own instrument enclosure.

INSTRUMENT PANEL COVER

Covers are available to protect the gauges, both solid and transparent. They also provide some security for machines as the covers can be padlocked closed.



WIRING WITH DIAGNOSTIC MODULE AND GAUGES

Instrumentation and wiring kits are available for installation within an OEM enclosure or cab.



WIRING HARNESS-DIAGNOSTIC MODULE

The service diagnostic port allows field analysis of ECU service codes when a full instrument panel is not available.



MISCELLANEOUS ENGINE ACCESSORIES

From major cooling systems to the smallest mounting bracket, John Deere is your complete source for engine accessories and integration. All John Deere accessories are designed to work together to provide trouble-free performance.

AUXILIARY DRIVES AND COMPRESSORS

Gear-driven John Deere auxiliary drives are available in a variety of configurations and spline sizes to match application, power, and orientation requirements. Front and rear drive options are offered. Refrigerant compressor kits are available for applications requiring air conditioning. A full range of John Deere air compressors meet your specific flow rate requirements. They are also available with an optional auxiliary thru-drive feature.

AUXILIARY DRIVE KITS REFRIGERANT



COMPRESSOR KITS



AIR COMPRESSOR KIT



AIR SYSTEMS AND FILTRATION

John Deere air filters improve performance and durability by removing dust, dirt, and other contaminants from intake air. Our pleat lock design keeps the media evenly spaced for less flow restriction, more dust-holding capacity, and longer service intervals. Hardened gaskets and heavy gauge end caps help maintain a tight seal.

RAIN CAP



AIR CLEANER ASSEMBLY

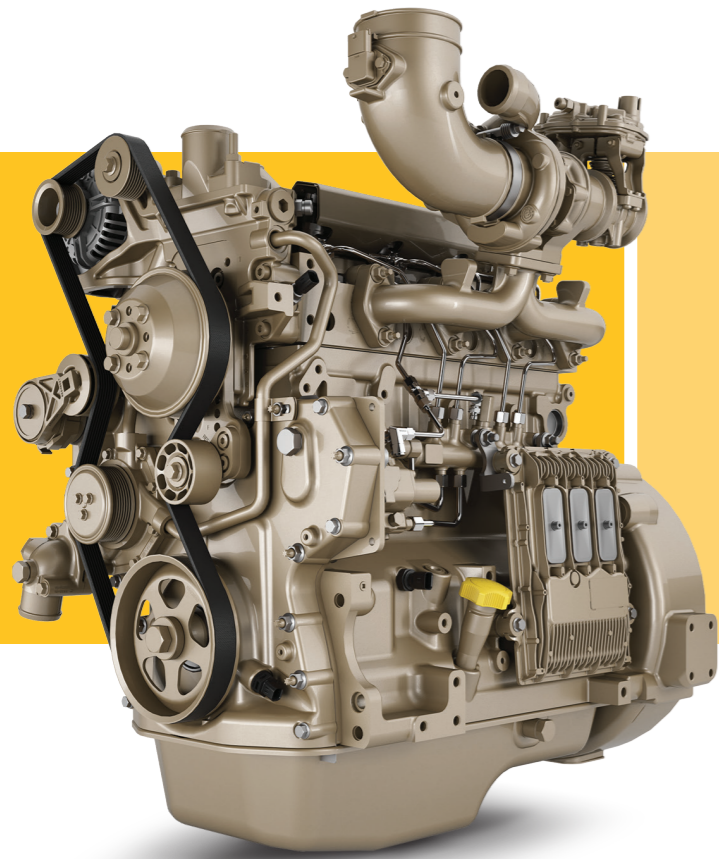


AIR FILTER ELEMENTS



AIR INTAKE MOLDED HOSE





John Deere Connected Support™

KEEP IT RUNNING

When it comes to maintaining engine uptime, it's good to have connections. John Deere Connected Support™ remote monitoring and diagnostics help you and your John Deere dealer keep your equipment running at peak performance.

John Deere Connected Support with JDLink™ is available on a number of John Deere engines, and it can be added to existing machines that use John Deere electronic engines. The data collected by JDLink is transmitted by cellular technology to the John Deere cloud server. Access online to registered users in the Operations Centre dashboard on MyJohnDeere.com or through iOS and Android mobile device apps.

EQUIPMENT OPTIMISATION

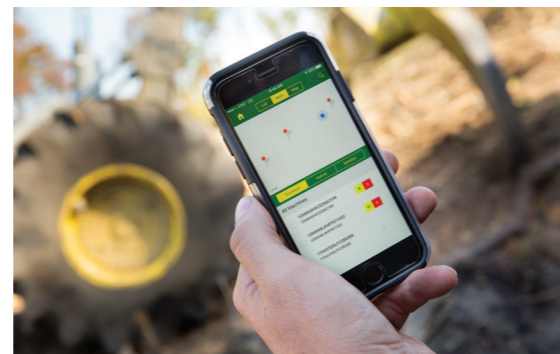
Access to real-time engine telematics enables equipment owners to optimise uptime, productivity, and management of their John Deere-powered machines. Find out which machines are generating revenue and which are idling. With engine and fuel utilisation data, determine how to optimise the machines' use and manage fuel consumption.

PREVENTIVE MAINTENANCE

John Deere remote monitoring also simplifies preventive maintenance and documentation. The system tracks service status and sends reminders of scheduled maintenance to help optimise equipment performance and extend machine life.

MACHINE SECURITY

Location and geofencing services provide logistics management and equipment security. If a machine operates outside of work hours or is removed from the site, you get an instant alert. The system also aids the recovery of stolen machines through GPS tracking.



*The Power
Behind The Brands*

Barrus is the only appointed John Deere Engine distributor for the UK and Ireland, with a long-standing relationship established over 25 years ago.

The Industrial Engine team has developed close relationships with many major customers working on diverse projects and applications. A core competency is the flexible approach to customers' needs. The experienced Service and Application Engineers team is fully manufacturer-trained and ready to support original equipment manufacturers and in-field service

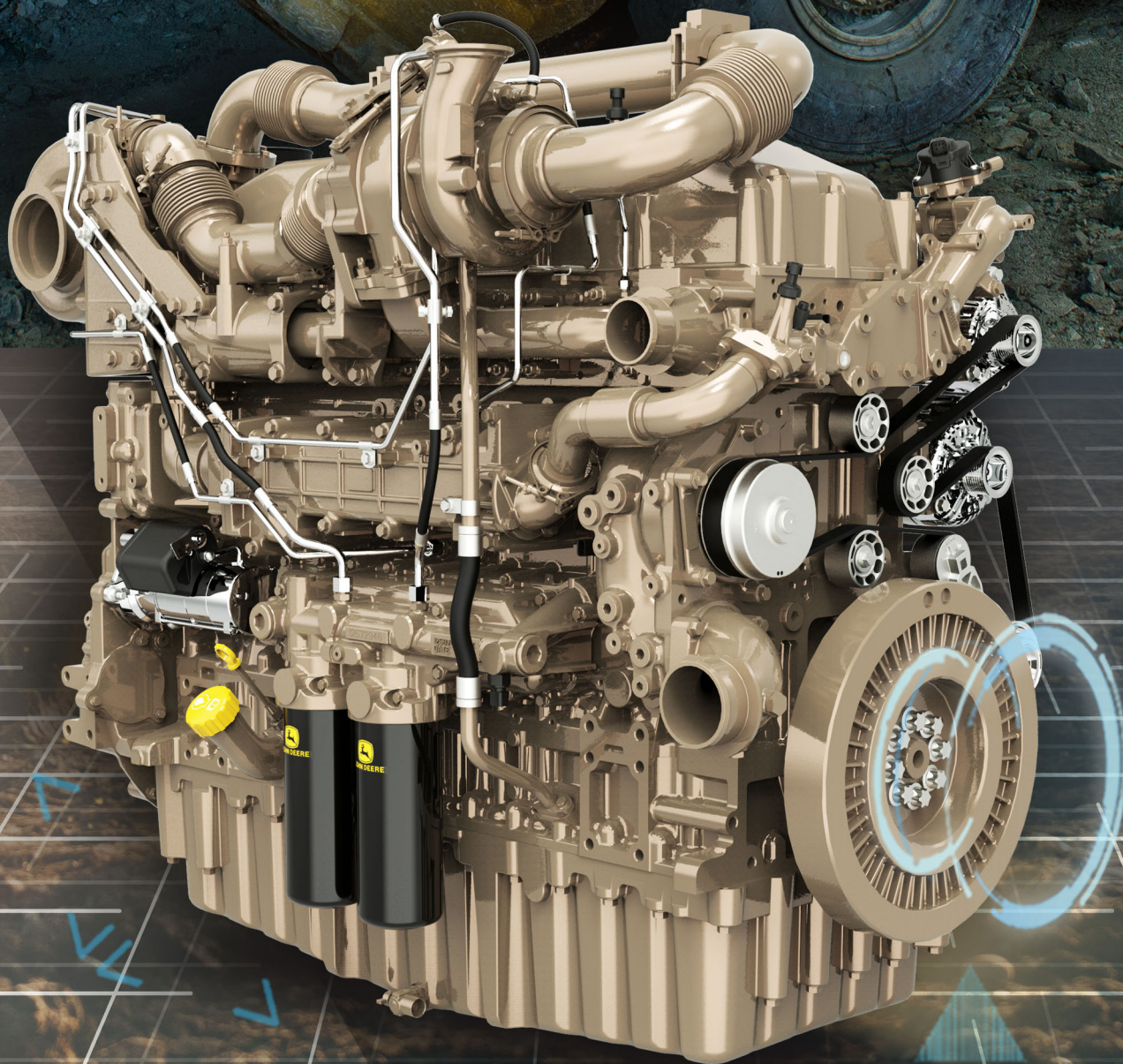


requirements. They provide specialist engineering support for all projects, from custom engine builds to in-house testing, in-field application testing, and service training.

The fully mobile service team provides on-site servicing and planned maintenance UK-wide, supported by the Bicester-based engineering workshop and testing facilities.



POWER MEETS PROGRESS



The Power
Behind The Brands

Specifications and/or prices are subject to change without notice.
Every effort is made to produce sales literature and price lists that are accurate and current.

John Deere - Supported by Barrus

E. P. Barrus Ltd., Glen Way, Launton Road, Bicester, Oxfordshire, OX26 4UR
Tel: 01869 363606 www.barrus.co.uk industrialsales@barrus.co.uk



JOHN DEERE