



**JOHN DEERE**

# *Engines and Engine Components*

**Maintenance, New Service Parts and Kits,  
and RemanSelect Service Solutions**



***Maintaining genuine  
John Deere performance.***



## Maintenance — oils, filters, and more

### Genuine John Deere parts and service

John Deere oils, filters, coolants, new parts, overhaul kits, remanufactured engines, and remanufactured engine components are all designed to keep your John Deere engines operating at their peak performance.

There's a reason why John Deere engines and equipment have such a strong reputation. **It's 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.



#### OilScan™/Fluid Analysis

Monitoring lubricating oil helps you avoid potential engine problems. The John Deere OilScan/Fluid Analysis program provides maintenance recommendations based on the chemical and physical analysis of an oil sample.



#### FuelScan™/Fuel Analysis

This test assesses the quality of your fuel and fuel storage system. The John Deere FuelScan/Fuel Analysis program provides Cetane Index, water levels, cloud point, sulfur content, and microorganism count.



#### CoolScan™/Coolant Analysis

Cooling system failures can lead to extended downtime. The John Deere CoolScan/Coolant Analysis program provides maintenance recommendations based on a comprehensive analysis of a coolant sample.



#### John Deere engine oils

All oils are not the same. John Deere oils are recommended for use in all diesel engines operating in severe-duty conditions.

Plus-50 oil is formulated to inhibit oxidation, deposit, corrosion, and wear with superior soot control. It reduces oil consumption and provides maximum sludge and varnish control.

When used in John Deere engines with John Deere filters, drain intervals may increase 50 percent over operator's manual recommendations, which equals a minimum of 30 percent savings versus standard drain intervals.



#### John Deere Cool-Gard™

John Deere Cool-Gard is a heavy-duty antifreeze/summer coolant that's engineered to match the performance requirements of your John Deere equipment.

Recommended for all diesel engines and available in concentrate (mix with water) and pre-mix (ready-to-use). Cool-Gard is the factory fill product for all John Deere machines.

Contains coolant conditioner, anti-corrosion additives, and anti-foaming agents to guard against liner pitting, rust, corrosion, and scaling. Cool-Gard provides long life performance for 5 years/5,000 hours.

#### John Deere filters



**Air filters:** Resin-impregnated media strengthens element. Ultra-Gard™ air filters with Superlock™ pleated media, maintains pleat spacing for maximum filtration.



**Oil filters:** Polyester material woven into paper media for added strength. Metal end caps provide extra strength and better seal. Tested for filtration efficiency and strength of filter media.



**Fuel filters:** John Deere filters are specially designed to protect today's fuel systems. Remember to change the filter regularly.

## New service parts and kits



Cylinder head



Gaskets



Oil cooler



Piston/liner assembly

Only genuine John Deere new service parts and kits meet exact original equipment standards. No matter what level of repair your engine needs – in-frame repair, in-frame overhaul or complete out-of-frame overhaul – John Deere parts will put your equipment back in action.

### Overhaul kits

Includes rod, main, and thrust bearings, thrust washers, oil pan, split gasket, piston/liner kits, liner packings, front and rear seals, overhaul gasket set, and snap rings. Viton® lower packing material are 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. Available for many John Deere engines are expanded engine overhaul kits that include rod bolts and bushings, piston pins, and camshaft bushings.

- Warranty: 1-year/1,500-hours



### Engine damper

Don't forget the damper. It consists of an inertia ring, elastic member, and hub assembly attached to the crankshaft. When torque is applied, the engine generates harmful vibrations. The damper reduces these vibrations, lengthens belt life, reduces wear on gears, and transmits less vibration to the front of the engine. Follow the engine maintenance guidelines for damper replacement to provide the best protection for your engine.



Old damper



New damper

## RemanSelect™

### John Deere remanufactured engines and components

Genuine John Deere RemanSelect remanufactured engines and components are built to the latest original equipment engineering specifications, and are fully warranted, so you can be assured of exact quality and great value.

- Every RemanSelect remanufactured engine and engine component is completely disassembled and cleaned
- Each part is rigorously inspected using the highest quality equipment
- Items found to be out of spec or worn are replaced with new or remanufactured components
- Wear items such as bearings, seals, gaskets, o-rings, bushings, pistons, and liners are replaced 100 percent of the time



#### Why use RemanSelect?

- Reduce your downtime 50 percent or more when compared to a overhaul repair option
- RemanSelect components are available at significant savings over new components
- Certified technicians use latest remanufacturing processes to ensure a high quality product to meet your needs
- All RemanSelect engines and engine components carry a genuine John Deere warranty

If reduced downtime, repair costs, and reliable product support are important to you, look to John Deere RemanSelect products.



# RemanSelect™

## remanufactured engine components



### Fuel injection pumps

- Parts are pre-qualified prior to assembly
- Tested and calibrated on computerized test stand to ensure maximum performance



### Fuel injection nozzle

- 100 percent tested on computer controlled rapid fire test unit
- Ensure correct spray pattern, no leaks, accurate opening pressure, correct leak-off rate



### Turbocharger

- Wear items are replaced with original John Deere parts
- Matched to your engine to provide optimum performance



### Cylinder head

- MagnaGlo™ and pressure tested to ensure structural integrity
- Intake/exhaust and fire deck surfaces milled to establish proper mating and sealing surfaces
- Valve face to fire deck height/recession checked
- New rotators, seals, valves, and keepers are used and vacuum tested



### Connecting rod

- Piston pin bushing replaced/resized, checked with air gauge
- Crankshaft end of rod resized with honing process
- Inspected for bend, twist, and length between crankshaft bore and piston pin bore
- Weighed, marked, and sorted for proper rod balance
- New torque-to-yield bolts are used



### Water pump

- New bearings, shafts, and seals are installed
- Shipped with installation gasket and fittings where appropriate



### Oil pump

- Worn gears, shafts, housings or covers replaced with genuine John Deere parts
- Remanufactured to ensure engine longevity
- Low noise operation



### A/C compressor\*

- Front and internal dust shields, shaft seal seat, gaskets, o-rings, pulley bearing, clutch-drive assembly, thrust/shaft bearings, shaft locknut are replaced 100 percent
- Reassembled and tested



### Starter

- Bearings, seals, gaskets, and solenoids are replaced 100 percent
- Use industrial grade armatures and field coils
- Reassembled and bench tested under load



### Alternators/generators

- Internal components use high temperature/bond strength insulation
- Industrial grade rotors and stators
- Reassembled and bench tested under load

### Warranty

All RemanSelect engine components carry a 1-year/unlimited-hours warranty (labor included if installed by a John Deere dealer unless otherwise noted).

\*1-year/unlimited hours warranty on parts and labor if installed by a John Deere dealer. 90-day warranty if not installed by a John Deere dealer.

# RemanSelect™

## remanufactured engines

A RemanSelect engine is a remanufactured engine built to exact John Deere standards. Unlike rebuilt engines that are only taken down to the point of failure, each RemanSelect engine core is completely disassembled, cleaned, and inspected. Every part must pass rigorous quality standards prior to shipment.

No other remanufacturer or rebuilder has access to current new engine specifications or the latest design improvements. When you choose RemanSelect products, you get factory quality, optimum performance, and more value for your money.



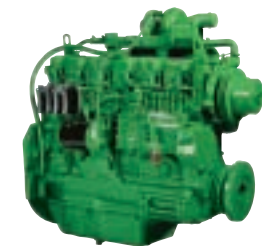
**Short block** – RemanSelect short blocks provide a cost effective repair solution. They include cylinder block with crankshaft, gasket kit, connecting rods, pistons, camshaft, and balancing shafts (where applicable). Warranty: 1-year/1,500-hours (all applications)



**Complete Block Assembly (CBA)** – RemanSelect CBAs include the short block components, plus cylinder head with valves, valve springs, valve keepers, rocker-arm assembly, front plate, front gear train, oil-pump assembly, and a complete gasket kit that contains front and rear seals and all other required gaskets. Warranty: 1-year/1,500-hours (all applications)



**Basic** – RemanSelect “Basic” engines include a complete short-block assembly, cylinder-head assembly with valve train and valve cover, oil pan, oil pump, oil cooler, water pump, and front cover. Warranty: 2-years/2,000-hours (agricultural applications) OR 1-year/unlimited-hours (OEM, industrial, construction, forestry applications)



**Complete** – A “Complete” RemanSelect engine is a running dynamometer-tested engine that includes all the same parts as a basic engine plus fuel and air system and crankshaft damper. They do not include electrical system, installation gasket kit, or cold-weather starting aids. Minor accessories may have to be switched over from the core engine. Warranty: 2-years/2,000-hours (agricultural applications) OR 1-year/unlimited-hours (OEM, industrial, construction, forestry applications)

	John Deere RemanSelect™	Short Block	Complete Block Assembly	Basic Engine	Complete Engine
Included components (remanufactured or new)	Cylinder block with crankshaft, connecting rods, pistons, camshaft, and balancing shafts (where applicable)	●	●	●	●
	Cylinder head with valves, valve springs, valve keepers, rocker-arm assembly		●	●	●
	Front plate, front gear train, and oil-pump assembly		●	●	●
	Valve cover, oil pan, oil pump, oil cooler, water pump, and front cover			●	●
	Fuel and air system and crankshaft damper				●
Items replaced 100 percent with new	• All gaskets, seals, plugs, and o-rings • Main bearings, camshaft bearings, connecting rod bearings, and bolts • Pistons and rings • Cylinder liners	●	●	●	●
	• Oil coolers (where required) • Intake and exhaust valves • Valve springs • Seals and keepers		●	●	●
	• Fuel and oil filters • Vibration dampers				●

# *There is no substitute for genuine*

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This guide was designed to make you aware of the variety of maintenance products as well as engine repair options available when you choose genuine John Deere parts and service.

Whether your engine powers an agricultural, construction, forestry, consumer/commercial product or OEM machine, you don't want to compromise when it comes to quality and reliability. For honest value and reliable performance, demand the best – genuine John Deere parts and service.

All genuine John Deere parts meet the same standards set by the engineers who design John Deere equipment. They know trust is earned, and John Deere has been earning customers' trust for 170 years.

So when you're choosing an engine repair option, remember, only genuine John Deere parts and service have what it takes to ensure the quality and reliability you demand.

For additional parts information or to find the nearest John Deere Distributor or Service Dealer, visit:  
[www.JohnDeere.com](http://www.JohnDeere.com)

