

# Better lubricants for better performance

Protect high-tech machines. Extend the life of your equipment.



**JOHN DEERE**



## Protecting the equipment you depend on

You know that machines and lubricants go hand in hand. Since John Deere manufactures both machines and lubricants, the best way to keep your investment in prime shape is by using only John Deere products, created specifically with your John Deere in mind.

Every lubricant we offer is developed by expert John Deere engineers and ideally optimised to meet heavy duty agricultural and turf requirements. Plus-50 II engine oil, for instance, is optimised for the newest Stage III B engines – and the only oil that is proven to run smoothly for up to 500 hours.

Take a good look at your lubrication options.

Choosing John Deere products not only ensures smooth, reliable performance and the highest level of productivity and protection, it also helps reduce maintenance costs by extending service and drain intervals.

Protect your equipment – protect your investment.

More information on John Deere lubricants is available at [www.jdparts.com](http://www.jdparts.com). Use keywords: 'oil' and 'coolant'.



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## Upgrade your performance with new Plus-50 II engine oil

All oils are not the same. The heavy duty demands of farming and turf machinery require an oil that's able to withstand much higher temperatures than a standard oil. The new John Deere Plus-50 II engine oil has been specifically developed for that purpose: off-road applications and extreme operating temperatures. As a result, it maintains its viscosity significantly longer and better than standard engine oils.

The JDQ-78X off-road dyno test has shown that Plus-50 II will keep running smoothly for up to 500 hours. Your hard working engines benefit from superior protection.

And you benefit from extended drain intervals, not to mention money saved on maintenance!

For long lasting, state-of-the-art productivity, Plus-50 II also meets the demands of the latest Stage III B engines. In fact, Plus-50 II is recommended for all on-road and off-road heavy duty diesel engines, old or new, and even improves the performance of diesel and natural gas engines.\*

Plus-50 II is also suitable for petrol engines so you can also use it in walk behind or ride on lawn mowers.



### Plus-50 II properties 15W40

Viscosity at 40 °C 128.0 cST  
 Viscosity at 100 °C 15.6 cST  
 Viscosity index 127  
 HTHS viscosity at 150 °C 4.3 cP  
 Pour point -36 °C  
 Flash point 225 °C  
 Total base number (TBN) 10.5 mg KOH/g  
 Sulfated ash 1.0 mass %

### Specifications

API service categories: CJ-4, CI-4, CH-4, SM, SL, SJ  
 ACEA oil sequences: E9, E7  
 JDQ 78X

### Key advantages

- Superior protection for current and older engines
- Extended drain intervals – up to 500 hours when using Plus-50 II and John Deere filters
- Formulated specifically to inhibit wear, corrosion, sludge, soot, varnish, and oxidation
- Delivers excellent low-temperature performance
- Proven performance in low-emission IT4 engines
- Full fleet solution
- Unsurpassed performance in John Deere JDQ-78X high-temperature engine test
- Compatible with biodiesel fuels and tested with B20 biodiesel blend.

\*Please check the manufacturer requirements before using Plus-50 II for other applications.

\*\* Ask your John Deere dealer for details.

## The JDQ-78X off-road dyno test

It's been proven: Plus-50 II engine oil not only keeps its fluidity and continues to lubricate effectively at lower temperatures, it also withstands the extremely high engine temperatures of heavy duty farm work. The result is less oxidation, so the oil maintains its overall viscosity longer. Considerably longer!

As a part of the early development of Plus-50 II, John Deere engineers implemented the JDQ-78X off-road dyno test, one of the most extreme off-road engine tests in the industry. This is a standard test which uses John Deere engines simulating off-road conditions. The purpose is to compare the performance of Plus 50 II oil against other premium oils under the same high temperature conditions.

### The test

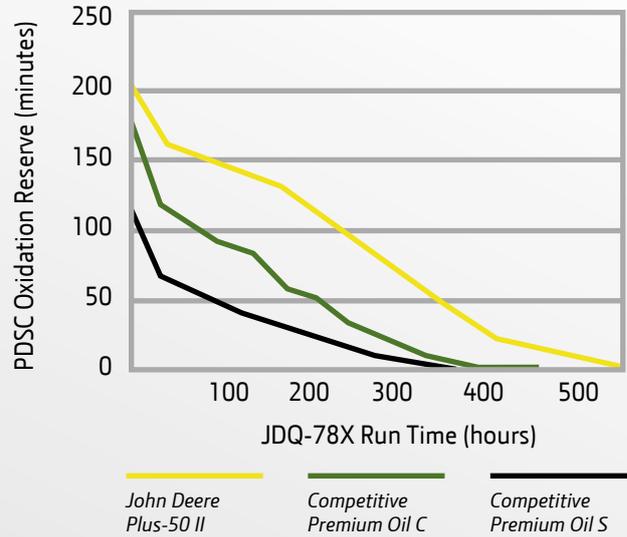
Several John Deere engines were run for 500 hours at full load (168 hp/125 kW) and high heat (140 °C sump) without any shutdowns and no oil added. To increase the stress on the oil, a B20 bio-diesel was used.

One engine was run with the new Plus-50 II oil. Other identical engines were run under the same conditions with competitive premium oils.

During the tests, Pressure Differential Scanning Calorimetry (PDSC) was applied to measure the oxidation induction time of the oils.

### The results

The engine parts were evaluated after each test run to determine how well the oil protected the engine under such extreme conditions. Plus-50 II oil protected the engine the most comprehensively, while visible wear on parts is visible with the competitive premium oils. The PDSC results in favour of Plus-50 II were also impressive.



## Pistons from the JDQ-78X test



Competitor CJ-4 Premium Oil    Plus-50 II Premium Oil

Plus-50 II oil is formulated for hotter off-road conditions in reducing piston deposits so the engine will perform for a long time.



## Why is Plus-50 II better for my engine?

Naturally, you want to be sure about Plus-50 II before you put it in your engine! So here are the answers to some of the questions you may have.

### **Does Plus-50 II protect engines as well as Plus 50?**

Better! Plus-50 II offers superior protection for existing and newer engines. In fact, Plus-50 II protects for up to 500 hours. That's approximately 250 hours longer than standard engine oil!

### **Can I top up Stage III A and older engines with Plus-50 II?**

Yes. Plus-50 II is fully compatible. You can add it to any engine that currently uses Plus 50 or a similar grade.

### **Can I put my existing Plus 50 in a Stage III B engine?**

No. API CI-4 or CI-4 Plus oils like Plus 50 are not suitable for Stage III B engines. Only Plus-50 II is suitable for Stage III B engines.

### **Can I also run a Stage III A engine for 500 hours on Plus-50 II?**

That depends. Drain intervals will vary according to the oil sump capacity and the sulphur content of your diesel fuel. Check your operators' manual for details. Better still, ask a certified John Deere technician to monitor your specific application.

### **Will Plus-50 II (JDQ 78X) protect older engines that use 500 ppm sulphur fuel?**

Yes. Plus-50 II provides superior protection and performance in engines that use both 10 ppm and 500 ppm sulphur fuel.





Certified John Deere technicians recommend Plus-50 II for all John Deere equipment.

## Choose the engine oil to match your equipment and use

Ask your John Deere dealer which oil will best suit your operating needs.

Use Torq-Gard for diesel engines. Torq-Gard is a high performance oil that meets the demands of recent generation engines. It's ideal for a wide range of applications in hot or cold weather. And Torq-Gard can be used in transmissions where engine oil is recommended.

Use Break-In Plus for diesel engines during their first service interval. Break-In Plus is specially formulated for the first 100 hours of operation of a diesel engine. It ensures maximum protection and cleanliness during this period – both of which are critical to the life and performance of your engine.



## Torq-Gard engine oil

If you're looking for hard-working, standard interval engine oil, Torq-Gard is a great choice. It protects four-stroke diesel engines 24/7, all year long (not for Stage III B or engines above).

### Torq-Gard benefits

- Neutralizes acid to reduce engine corrosion
- Sludge control ensures cleaner engines
- Reduces oil consumption
- Minimises fuel consumption and pollutant emissions
- Drain interval up to 250 hours

### Torq-Gard applications

- Recent generation engines
- Older generation engines
- Turbo or non-turbo engines
- Diesel or petrol engines

### Torq-Gard specifications

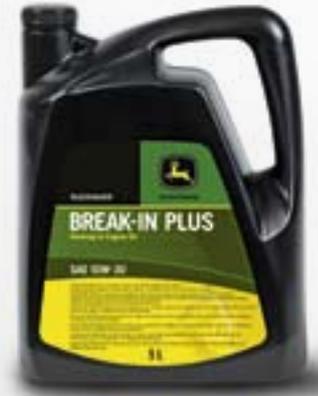
- SAE 15W40
- ACEA E5
- API CH4
- API SJ



## Break-In Plus running-in engine oil

This is the only engine oil used when John Deere equipment comes off the factory line. Here's why: Break-In Plus has been specially formulated for use in the first 100 hours of operation of a diesel engine.

It combines the premium 500-hour protection of Plus-50II engine oil with special additives to establish excellent wear patterns. As a result, Break-In Plus ensures maximum protection and cleanliness during the vital running-in period of new, rebuilt and remanufactured engines. And that's critical to the life and performance of your equipment.



### Break-In Plus benefits

- Protects up to 500 hours in new, rebuilt and remanufactured engines
- Should be used for at least the first 100 hours to ensure rings and liners set correctly
- Provides a controlled environment for piston rings and cylinder liners to establish good wear patterns for a long engine life
- Contains special anti-wear additive to protect valves, bearings and gears during the break-in period
- Helps prevent excessive oil consumption
- Meets oil requirements for Stage III B and all other engines

### Break-In Plus applications

- Suitable for effective running-in of a new or repaired engine
- Used to establish protective anti-wear films and to prevent components from suffering excessive wear
- To be used only in accordance with the manufacturer's instructions

## Protect your hydraulic and power train systems with reliable JohnDeere Hy-Gard products.



Protect your hydraulics and transmissions with the best oil for both: Hy-Gard. It not only meets John Deere equipment standards, it exceeds them. And Hy-Gard is a sophisticated Universal Tractor Transmission Oil (UTTO). So it's easy for you to choose the right oil for your agricultural and turf equipment.

This top-of-the-line lubricant provides smooth performance under a wide range of operating conditions for:

- Transmissions and differential units with immersed “wet” brakes
- Gearboxes with hydraulic brakes
- Gearboxes with hydraulic derived systems
- Hydraulic transmissions

### More good news

We also offer Bio Hy-Gard II and Hy-Gard Low Viscosity.

Now you can always choose the oil that best suits your needs.

Hy-Gard meets two standards

- JDM J20C (regular)/JDM J20D (low viscosity) – minimum specs
- RES 10060 for John Deere factory and aftermarket standards

J20C is the standard that oil must meet to be used in a John Deere machine. Hy-Gard far exceeds this standard. How? By meeting John Deere RES 10060 factory-fill and aftermarket Hy-Gard oil standards. No other oil in the industry meets Hy-Gard's RES 10060 specifications.

Like all John Deere engine oils, Hy-Gard is extensively tested both during and after its development. For instance the JDQ95 gear wear test focuses on the oil's ability to protect gears from wear under severe loading conditions.

### Hy-Gard

is specifically designed to protect your John Deere transmissions, wet clutches, wet brakes and hydraulic systems.

#### Hy-Gard benefits

- Extensively tested and proven to deliver excellent performance
- Recommended for equipment with common reservoirs or separate transmission and hydraulic systems, including those with wet brakes and clutches
- Superior high temperature performance helps ensure fewer deposits and a longer life
- Performance exceeds the most recent John Deere specification (RES 10060) for UTTO lubricants
- Controls moisture build-up, oxidation and deposit formations due to heat
- Ensures the smooth operation of oil-immersed “wet” brakes (e.g. better productivity, longer brake pad life, less vibration)
- Prolongs clutch life

#### Hy-Gard applications

- The Hy-Gard multi-viscosity formula allows your system to perform well all year long

#### Hy-Gard specification

- Exceeds John Deere JDM 20C and RES 10060 specifications

### Hy-Gard Low Viscosity

has the same performance specifications as Hy-Gard and can be used as a replacement for Hy-Gard in cold weather.

#### Hy-Gard Low Viscosity benefits

- Use as a direct replacement for all-weather hydrostatic fluid

#### Hy-Gard Low Viscosity specification

- Use in place of Hy-Gard in cold weather or for systems calling for John Deere JDM J20D



**Bio Hydrau-Gard 46 Plus\*\***

is an advanced biodegradable hydraulic fluid for use in power transmission and hydraulic systems working in environmentally sensitive areas.

**Applications**

- All hydraulic systems

**Key advantages**

- Readily biodegradable
- Excellent viscosity/temperature characteristics
- High shear-stability
- Excellent corrosion protection
- Good oxidation resistance

**Bio Hydrau-Gard 46 Plus specification**

- ISO VG 46 oil meets or exceeds requirements in ISO 15380 (Category HEES), DIN 51524 Part 3, SS 15 54 34

**Hydrau-Gard 46 Plus\*\***

is an advanced performance, anti-wear, shear stable hydraulic oil. It is designed for applications subjected to a wide range of temperatures or where small viscosity variations are required.

**Applications**

- All hydraulic systems

**Key advantages**

- Excellent shear stability and low viscosity variation with temperature.
- High thermal stability.
- Outstanding anti-wear performance.
- Excellent filterability (dry and wet)
- Excellent oxidation stability
- Rust and corrosion protection
- Rapid air release and anti-foam properties

**Bio Hydrau-Gard specification**

- ISO VG 46 oil meets or exceeds requirements in ISO 11158 (Category HV), DIN 51524 Part 3



**Bio Hy-Gard II**

Because Bio Hy-Gard II is made from native rapeseed oil it is biodegradable and very environmentally friendly.

**Bio Hy-Gard II benefits**

- Biodegradable formulation for use in areas where contact with soil and water can occur
- Provides the same performance and wear protection additives as Hy-Gard

**Bio Hy-Gard II applications**

- The Hy-Gard multi-viscosity formula allows your system to perform well all year long

**Bio Hy-Gard II specification**

- Exceeds John Deere JDM J20C specifications

**Extreme-Gard**

Extreme-Gard is a very high pressure tractor transmission oil. It is designed for the effective lubrication of mechanical transmissions and gearboxes in John Deere agricultural and turf machinery.

**Applications**

- Final reduction drives
- Differential units
- Manual gearboxes
- Hypoid axles

**Key advantages**

- Extended mechanical component life due to excellent anti-wear properties and extreme pressure performance
- Adapted to all types of operating conditions including: high-speed/shock loading, high-speed/low torque, low-speed/high torque and abrupt variations in loading
- High resistance to oxidation and high thermal stability
- Enhanced component cleanliness over extended periods (due to lower deposit formation)
- Ensures effective, reliable operations for extended periods under adverse operating conditions

**Extreme-Gard specification**

- SAE 80W90, API GL5



\*\*Not sold in the UK and Ireland

## Cool-Gard II protects your cooling system for six years!

Cool-Gard II is the environmentally-friendly coolant that is designed to extend the life of your engine. That's why it protects your cooling system for up to six years or 6,000 hours! This remarkable coolant/ antifreeze protects against corrosion, cavitation and deposits under the harshest conditions.

Advanced oxidation stability provides long-lasting protection against heat. So you'll spend more time in the field turning profits and less time worrying about maintenance expenses.

### Cool-Gard II benefits

- Made with a propylene glycol base
- Designed to deliver a six-year/6000 hour service life when complete cooling system flush is performed prior to use
- Extensively tested in John Deere cooling systems to ensure top performance
- Enhances thermal oxidation stability to maintain performance, despite the increased tank temperatures of Stage III B and heavy duty engines
- Protects against corrosion and deposits in both summer and winter conditions
- Extends water pump life and prevents liner cavitation
- Available in ready to use 50/50 pre-mix



## Grease-Gard Premium Plus and Grease-Gard Premium

Grease-Gard Premium Plus and Grease-Gard Premium are ideal for use in all kinds of machinery. This includes tractors, harvesters and turf machinery too. Use them to protect bearings, drive shafts and all the other moving parts where grease is required.

### Grease-Gard Premium Plus

is a high quality, high temperature, high pressure, multi-purpose HD Lithium complex grease. It is used by John Deere for initial factory-fill lubrication of U-joints and axle bearings and it is compatible with most other types of grease.

#### Grease-Gard Premium Plus benefits

- Excellent resistance to high temperatures
- Excellent equipment vibration protection
- Excellent protection in corrosive and wet conditions
- Excellent resistance to water wash out
- Excellent temperature range:  $-28^{\circ}\text{C}$  to  $+167^{\circ}\text{C}$
- Extends re-greasing intervals
- Ideal in rolling-contact applications

#### Grease-Gard Premium Plus specifications

- NLGI grade 2 is a high quality, high pressure, multi-purpose Lithium grease



### Grease-Gard Premium

is a high quality, high pressure, multi-purpose Lithium grease that offers excellent performance in light to medium duty and is ideal for all-season general purpose lubrication.

#### Grease-Gard Premium benefits

- Ideal for light to medium duty wheel bearings and U-joints
- Excellent resistance to extreme pressure
- Excellent protection against corrosion
- Excellent resistance to water wash out
- Very good temperature range:  $-26^{\circ}\text{C}$  to  $+143^{\circ}\text{C}$

#### Grease-Gard Premium Plus specifications

- NLGI grade 2



## A complete range of lubricants, greases & coolants



**Plus-50 II 15W40****Packs available**

- 1000 L (VC50002x1000)
- 209 L (VC50002x200)
- 20 L (VC50002x020)
- 5 L (VC50002x005)
- 1 L (VC50002x001)
- BULK (VC50002x000)

**Torq-Gard 15W40****Packs available**

- 209 L (VC83070-200)
- 20 L (VC83070-020)

**Break-In Plus****Pack available**

- 5 L (VC22939x005)

**Hy-Gard****Packs available**

- 1000 L (VC81824-1000)
- 209 L (VC81824-200)
- 20 L (VC81824-020)
- 5 L (VC81824-005)
- BULK (VC81824-000)

**Hy-Gard Low Viscosity****Pack available**

- 20 L (VC81817-020)

**Bio Hy-Gard II****Pack available**

- 25 L (YU70643-025)

**Extreme-Gard 85W140****Pack available**

- 20 L (VC82609-020)

**Extreme-Gard 80W90****Packs available**

- 5 L (VC82610X005)
- 1 L (VC82610X001)

**Extreme-Gard LS90****Packs available**

- 20 L (VC87939-020)
- 5 L (VC87939-005)

**Cool-Gard II****Packs available**

- 1000 L (VC76215-1000)
- 200 L (VC76215-200)
- 20 L (VC76215-020)
- 5 L (VC76215-005)

**Grease-Gard Premium****Pack available**

- 0.4 kg (VC65723-004)

**Grease-Gard Premium (Lube Shuttle)****Pack available**

- 0.4 kg (YU82712-004)

**Grease-Gard Premium Plus****Packs available**

- 0.4 kg (VC67009X004)
- 5 kg (VC67009X005)
- 20 kg (VC67009X020)

**Bio Grease-Gard****Pack available**

- 0.4 kg (BYU82711-004)

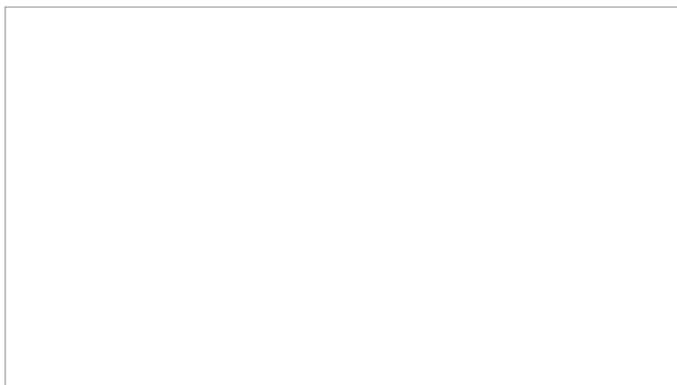
# Your business couldn't be in better hands

Nobody knows your machine better  
than us.

We designed it. We built it. And we  
service hundreds like it around the world.

It gives us a unique understanding of  
how different machines perform in  
different environments.

We share that knowledge throughout  
our service network. So technicians  
at your local John Deere dealership  
have an understanding and expertise  
like no other. Now add to this genuine  
John Deere parts which are built to get  
the best possible performance from  
your machine – and you're ready to  
accomplish more. Every day!



**JOHN DEERE**

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