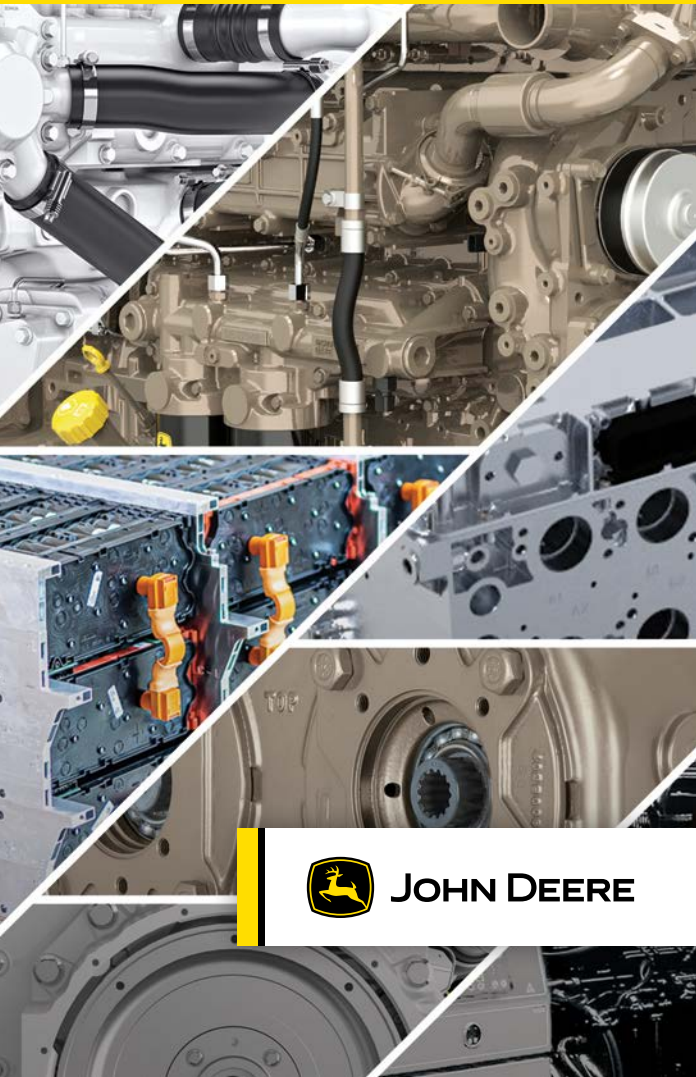
John Deere Power Solutions

Diesel engines, battery power, drivetrains, and electronics for OEMs



JOHN DEERE

A NEW ERA
IN POWER

John Deere is redefining what equipment power can accomplish. This new era doesn't depend on innovation alone — it recognizes new opportunities while prioritizing performance, efficiency, and sustainability. This practical approach defines how John Deere continuously works to power our changing world — with next generation diesel engines, battery power, drivetrain components, advanced electronics, and renewable fuel technologies.

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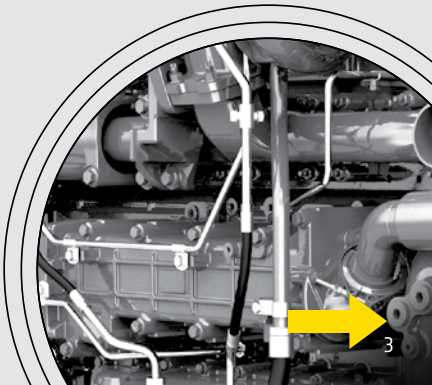

POWER AT A GLANCE

ADVANCED INDUSTRIAL ENGINES

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CUSTOMER SUPPORT AT A GLANCE

STRONG NETWORK

9,000+ service locations and a worldwide parts distribution system.

THE RIGHT PARTS

Choose from Genuine John Deere, Reman, and Alternative parts for all makes and ages of machines — at any budget.

WARRANTY SUPPORT

Registering your new John Deere engine or drivetrain component makes it easy to get warranty service if you should ever need it.

LIFECYCLE SERVICE SOLUTION

OEM ENGINE MAINTENANCE PLANS

Flexible plans make it easy to protect your investment and get complete maintenance managed by John Deere engine experts.

POWERGARD™ PROTECTION PLAN

Protect your engine for up to five years or 10,000 hours with a John Deere extended warranty.

JOHN DEERE CONNECTED SUPPORT™

Remote monitoring and diagnostics help you and your John Deere dealer keep your OEM equipment running at peak performance.

EXPERIENCE

ONLY AN OEM WOULD UNDERSTAND

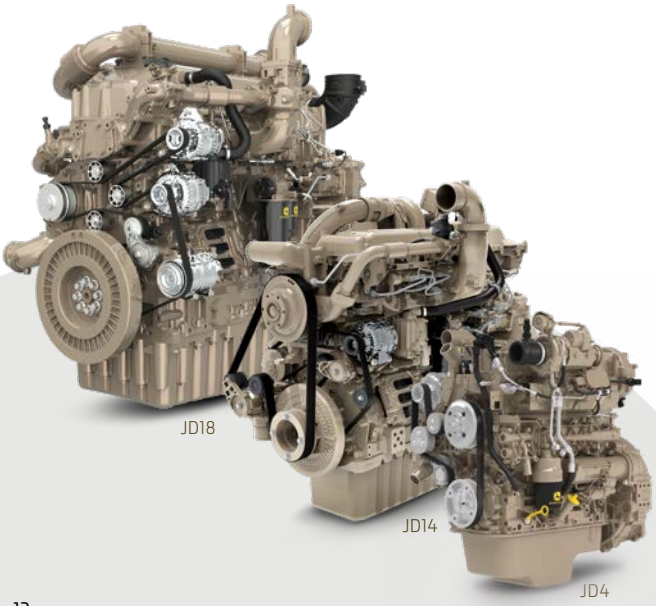
John Deere is much more than an engine manufacturer. We're an OEM too — with more than 300 internal applications in rugged agricultural, construction, and forestry applications. Not only do we integrate engines and drivetrains, but we are also adding battery powertrains to our equipment.

When OEMs specify John Deere power, they get something not all engine manufacturers can provide — application support and engineering assistance from someone who understands their needs. This total machine integration lets us provide a seamless OEM solution from the engine electronics to the drivetrain components. Plus, our preconfigured options save hours of engineering time and help get thousands of OEM machines to market fast.

Next Generation Advancements

With power ratings from 36 to 677 kW (48 to 908 hp) and emissions levels from Final Tier 4/ Stage V to non-certified, John Deere helps OEMs meet power needs in all areas of the world.

John Deere is expanding its engine power range with advanced engines that are simple to integrate, are easy to service, and share many common maintenance parts.



Higher power density
Many models feature more power with a reduced package size compared to previous John Deere engines.

Low maintenance
Hydraulic lash adjusters (HLA) offer a maintenance-free valvetrain, eliminating the need to reset the lash.

Easy operation
Rear gear train on some models provides customers with low noise and high PTO power.

Reliability and uptime
Improved John Deere model-based controls offer excellent diagnostic capabilities.

POWER RATINGS

FINAL TIER 4/STAGE V INDUSTRIAL ENGINES

JD18

522 – 677 kW
(700 – 908 hp)

JD14

300 – 510 kW
(402 – 684 hp)

JD9

205 – 343 kW
(275– 460 hp)

9.0L

187 – 317 kW
(251 – 425 hp)

6.8L

104 – 224 kW
(140 – 300 hp)

4.5L

55 – 129 kW
(74 – 173 hp)

JD4

63 – 129 kW
(84 – 173 hp)

2.9L

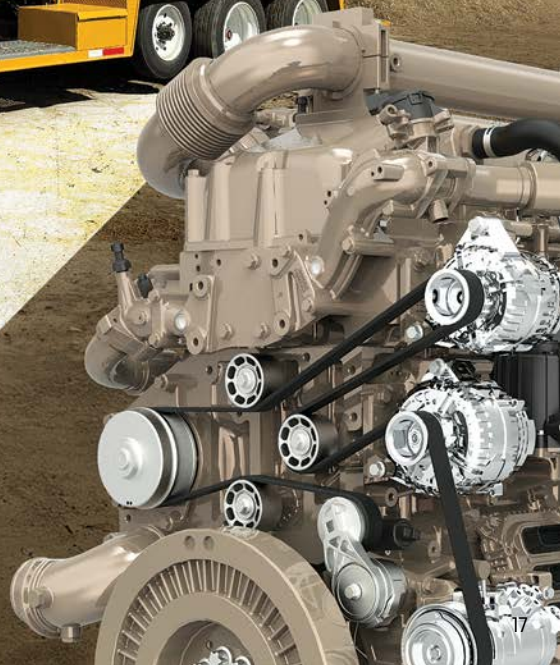
36 – 55 kW
(48 – 74 hp)

kW	0	75	149	224	298	373	447	522	597	671
hp	0	100	200	300	400	500	600	700	800	900

INDUSTRIAL

"WE THREW THE TOUGHEST MATERIALS WE COULD FIND AT IT. THE JD18 IMPRESSED US WITH ITS SPEED AND EFFICIENCY."

ROD GIESE
Owner, Jones Manufacturing Company



JD18

GENERATOR DRIVE ENGINES

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 for prime power. Leading gen-set manufacturers trust John Deere generator drive engines to provide power for a wide variety of critical applications. We offer more than 250 configurations of generator drive engines from 31 to 505 kWm to meet emissions regulations and power nodes for the global market.

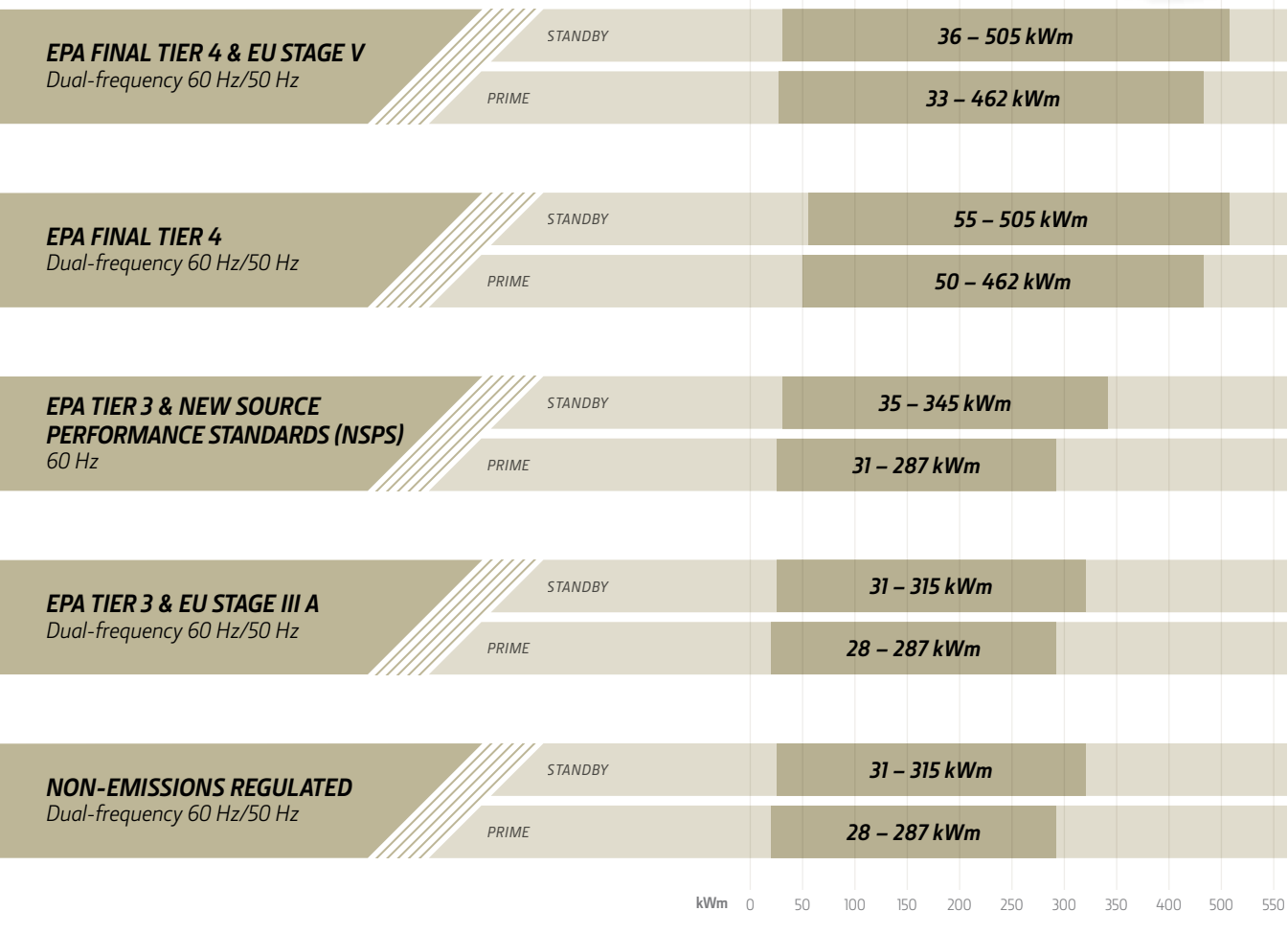
Load acceptance
Tailored turbocharging technology provides exceptional load acceptance and block loading capability.

Low-idle capability
Reduce fluid consumption and decrease wear during transport or startup and shutdown checks.

Power density
John Deere engines are designed to deliver maximum power in a compact engine package. They are known for delivering exceptional kWm per liter of displacement.

Day-to-day reliability
John Deere engines feature top-liner cooling, efficient lubrication, and robust cooling systems for reliable operation.

POWER RATINGS >>> *GENERATOR DRIVE ENGINES*



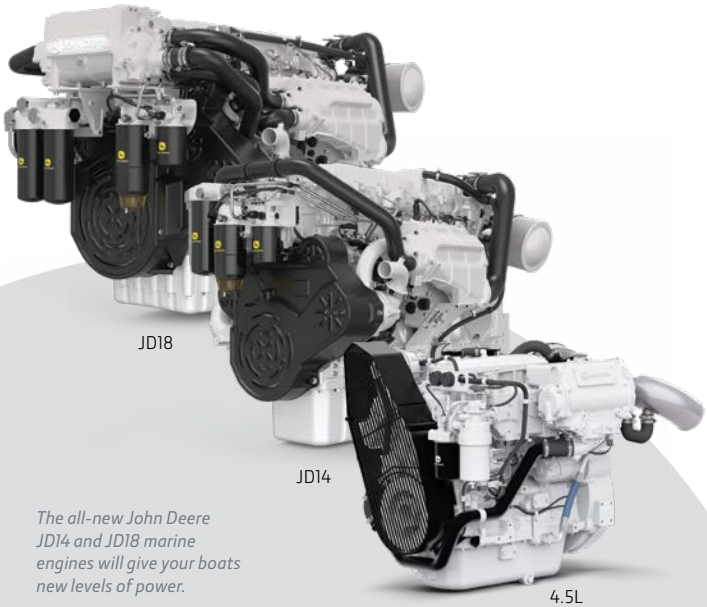
GEN DRIVE

WHEN CLIENTS CHOOSE US FOR THEIR IRRIGATION SYSTEMS, THEY TRUST IN THE QUALITY ANCHORED BY A JOHN DEERE ENGINE — THE ROBUSTNESS OF ALL THE EQUIPMENT, APPLIED SAFETY, METICULOUS ENGINEERING, AND COMPREHENSIVE AFTER-SALES SUPPORT.”

EZEQUIEL CHAYÉ
Managing Director,
Powered Solutions by Chayé

Commercial and Recreational Power

Whether you're 100 miles offshore or in a busy port, you need marine engine power you can count on. Your life and your livelihood depend on your boat running strong — and carrying you back to shore safely. That's why vessel owners and operators have trusted and recommended John Deere power since 1991.



The all-new John Deere JD14 and JD18 marine engines will give your boats new levels of power.

Powering through waves

John Deere propulsion engines boast robust torque at slow speeds to deliver performance for your vessels in swells, tides, and currents.

Staying in the background

John Deere generator drive and constant-speed auxiliary engines deliver quiet operation and low vibration.

Getting work done

We also provide a full line of reliable and fuel-efficient variable-speed auxiliary engines, with dry-exhaust or wet-exhaust manifolds, to run vessel auxiliaries, such as pumps, winches, deck cranes, and hydraulics.

POWER RATINGS >>> MARINE ENGINES

PROPULSION ENGINES

60 – up to 599 kW
(80 – up to 803 hp)

CONSTANT-SPEED AUXILIARY & GENERATOR ENGINES

40 – up to 599 kW
(54 – up to 803 hp)

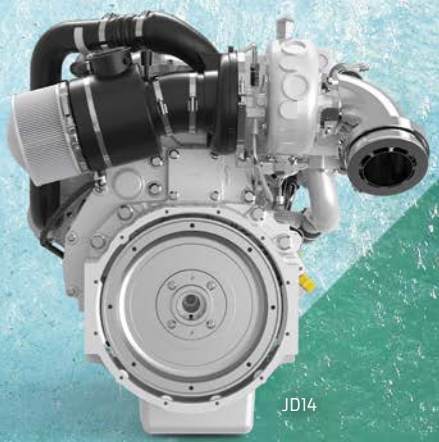
VARIABLE-SPEED AUXILIARY ENGINES

74 – 522 kW
(99 – 700 hp)

kW	0	75	149	224	298	373	447	522	597	671
hp	0	100	200	300	400	500	600	700	800	900

"WE OPERATE IN ALL KINDS OF CONDITIONS — 24/7, 365 DAYS A YEAR. THESE ENGINES BRING US HOME EVERY NIGHT SAFELY."

MIKE MEYERS
Captain for Canaveral Pilots Association



JD14

NAVIGATING BUSY HARBORS AND DOCKING CAN BE A CHALLENGE FOR TALL SHIPS, BUT THESE ENGINES MAKE MANEUVERING IN TIGHT SPACES MORE PRECISE AND EFFICIENT.

LESTER FRANK
Superintendent on the *Belem*

Twin 13.5L Engines

Here for You Wherever You Go

The proven John Deere network of 9,000+ John Deere parts and service dealers is here to fully support you near worksites and waterways around the world. Our dealers keep John Deere maintenance and repair parts in stock to get you back to work quickly. John Deere also offers fast delivery options to help ensure you get the parts you need, when you need them.

Find your closest John Deere engine distributor or service dealer at **JohnDeere.com/Dealer**. Ask them about the parts you need, or visit **JohnDeere.com/EngineParts**.

9,000+

JOHN DEERE PARTS AND SERVICE LOCATIONS

THE RIGHT PARTS

- **Genuine John Deere Parts**
  Genuine John Deere parts are your best choice for your newer machines.
- **Remanufactured Parts**
  John Deere Reman parts help you cut costs, not quality.
- **Alternative Parts**
  Alternative parts are an economical solution for John Deere and most other brands of equipment.
- **Maintenance Parts**
  Protect your most valuable assets with Genuine John Deere batteries, oil, filters, grease, and coolants.

Warranty Support When You Need It

Every John Deere engine comes with a 2-year/2,000-hour standard warranty. This warranty applies not only to the new OEM engine but also to most John Deere parts and accessories added by a John Deere engine distributor.* Registering your engine at **JohnDeere.com/OEMWarranty** gives us the information needed to stock the right service parts, maintenance products, and servicing tools.‡

LOOK UP DETAILS ABOUT YOUR ENGINE

Retrieve serial-specific information for your John Deere engine. Just scan or enter your John Deere engine serial number in the free PowerAssist™ app to access option codes, manuals, ECU information, and much more.

Don't have a mobile device? Go to **JohnDeere.com/EngineSupport** and sign in to the engine information search database.

2/2,000

2-YEAR/2,000-HOUR STANDARD WARRANTY

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

‡See specific OEM product warranty language for applicable terms and conditions.

Note: The 2-year/2,000-hour standard warranty and OEM engine registration may not be available in all countries.

SERVICE AND SUPPORT

OEM Engine Maintenance Plans

Protection That Lasts

John Deere OEM engine maintenance plans are the easiest way to get complete service managed by engine experts. Whether you have a new or used John Deere engine, you can get peace of mind, protect your investment, and lock in your maintenance costs.

PowerGard™ Protection Plan

Extend Your Engine Warranty

Get extended warranty coverage for up to five years or 10,000 hours with John Deere PowerGard Protection Plan.* It also protects John Deere components and accessories installed by an authorized John Deere dealer or distributor.

John Deere Connected Support™

Stay Connected to What Counts

Unlock proactive engine support and help avoid unplanned downtime with John Deere Connected Support remote monitoring and diagnostics.* This technology allows John Deere service experts to maximize the customer experience — utilizing machine health monitoring, predictive alerts, and remote diagnostics.

**Contact your John Deere dealer or distributor for availability in certain countries and on specific engine models.*

ENGINE REGISTRATION

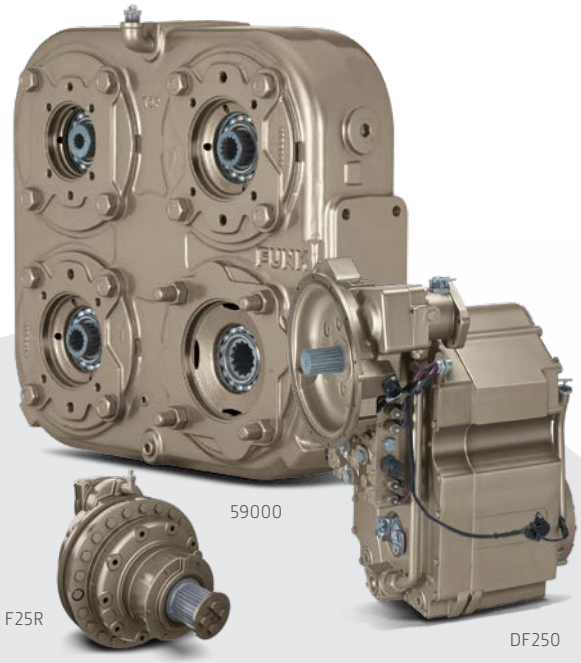
Ready to unlock the benefits of the John Deere Lifecycle Service Solution? To get started, you'll need to register your John Deere engine by scanning the QR code found on your engine's primary fuel filter, fuel filter housing, or oil filter.

You can also visit **ProductRegistration.Deere.com** and enter your serial number manually to register your engine.

MECHANICAL DRIVETRAINS

Productivity in Motion

Backed by a reputation for reliability and customer service, John Deere and Funk™ pump drives, transmissions, axles, and planetary drives optimize performance, improve uptime, and deliver low cost of operation.



Modular design

John Deere and Funk drivetrain components are built using a modular approach for design versatility and quick delivery.

Reliability and durability

When you choose John Deere drivetrain components, you know you are getting a winning combination of performance, reliability, and durability.

Application integration

Just tell us what you want your vehicle to do. John Deere engineers can help you select the correct drivetrain components and integrate them into your application to meet your goals.

MECHANICAL DRIVETRAINS

28000

MODULAR PUMP DRIVES

With thousands of combinations, gear ratios, hydraulic pump adapters, mounting options, and more — we can configure a pump drive to your design specifications.

- **Direct drive or gearbox options with up to five output pads**
- **Max. input power: 708 kW (950 hp)**
- **Max. input torque: 2,712 Nm (2,000 lb-ft)**

HMD 33000

HYDROSTATIC MOTOR-DRIVEN (HMD) TRANSMISSIONS

HMDs provide electronic controls for heavy-duty equipment, such as dozing machines, motor graders, railway vehicles, sweepers, pavers, and other applications where a controlled ground speed is critical.

- **Two-speed 18000 HMD with 149 kW (200 hp) rating for high-power needs**
- **Two-speed HS17000 HMD capable of shifting gear ranges while in motion**

DF150

POWERSHIFT TRANSMISSIONS

Smooth shifting and various mounting options to meet the needs of applications in construction, mining, railroad maintenance, and other industries.

- **2000 Series features mechanical/electric controls**
- **DF Series brings the latest electronic control technology to the off-highway market**

MECHANICAL DRIVETRAINS

1400 Series

INBOARD PLANETARY AXLES

When workloads are heavy and conditions are harsh, the John Deere family of inboard axles have proven themselves over and over in the most rugged conditions. Our SWEDA™ Super Wide Extreme Duty Axles are ideal in situations where your vehicles must leave only a minimal footprint without sacrificing performance.

- **1200 Series: 240,000 N (54,000 lb) peak vertical load**
- **1400 Series and 1400 Series SWEDA: 300,000 N (67,000 lb) peak vertical load**

F12

PLANETARY GEAR DRIVES

Various ratios of input gear reduction sets, along with single and multiple combinations of center-section planetary gears, accommodate a wide range of applications, including conveyers, cranes, crawlers, excavators, road rollers, track vehicles, winches, and many others.

- **Intermittent output torque up to 33,895 Nm (25,000 lb-ft)**
- **Ratios available from 3.27 to 117:1 (depending on model selected)**

> ***THE SELF-PROPELLED SOLUTION ALLOWS FARMERS TO HARVEST WITH JUST ONE PASS THROUGH THE ORCHARD.”***

MARK WIESNER
Owner of Wiesner Metal Fab

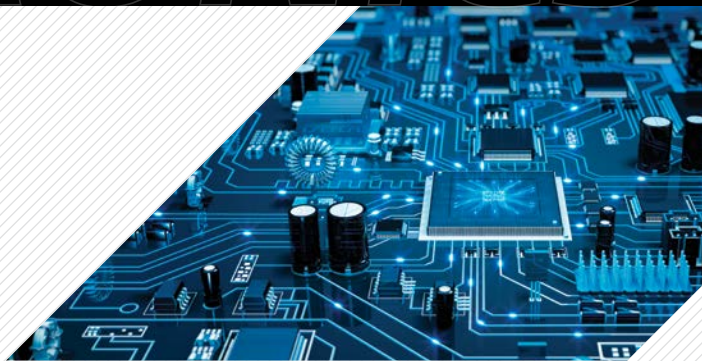
Weisner Metal Fab builds their self-propelled hazelnut harvester with the help of a custom power package that integrates a John Deere 4.5L industrial engine with a Funk 59000 four-plate hydraulic pump drive.

ELECTRONIC SOLUTIONS

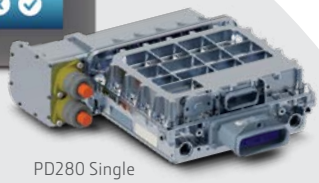
Electronics for OEMs

OEMs rely on our extensive experience to design and manufacture integrated electronics that can withstand the harshest physical and electrical environments. As an OEM, John Deere offers robust modules for a wide variety of mobile equipment and industrial applications.

Learn more at **JohnDeere.com/Electronics**.



DR8 Integrated Display



PD280 Single

PD400 Dual

POWER ELECTRONICS

Overcome the toughest electrification challenges.

John Deere power inverters offer advanced motor control with flexible application software to optimize system performance. They allow the replacement of standard drivetrains to either a battery-electric or hybrid-electric vehicle.

DR10/DR12

INTEGRATED DISPLAYS

Display critical information in real time.

John Deere fixed segment and reconfigurable displays are ruggedized for extreme conditions. They are sunlight readable with LED high-brightness backlit touchscreens. Our displays interface to the vehicle through industry-standard communications protocols, including CAN and Ethernet.

ELECTRONIC SOLUTIONS

M-Modem

TELEMATICS

The gateway between your equipment and digital tools.

The John Deere M-Modem and R-Modem let you connect to what counts from anywhere. Connect your vehicle to the internet to track machine health and perform remote diagnostics. Certified and approved to support use in over 100 countries.

Gb Ethernet Switch

GB ETHERNET SWITCH

The data manager.

The Gb Ethernet Switch allows for up to 1 Gb communication and high-definition data sharing across displays, controls, cameras, and more. Rugged design is IP67 rated and 12/24V compatible.

M4 Series

ELECTRONIC CONTROLS

The brains of your vehicle, equipment, or implements.

Multiple combinations of inputs, outputs, and computing power give you the control options you need — all in one common architecture. Our family of controllers provides ruggedized control for hydraulics, cab/body, power distribution, powertrain, implements, and lighting.

Acceleration Sensor

SENSORS

Detect dynamic acceleration events.

The John Deere Acceleration Sensor features hardware and software filtering options used to tune the desired frequency. We also offer an RFID Reader with 866 and 915 MHZ variants and a HadronMini R1271C CAEN RFID Engine.

BATTERY POWER SOLUTIONS

Your Battery Technology Pioneer

KREISEL Electric is an integrated part of the John Deere family. They focus on developing battery solutions utilizing Dynamic Performance Management technology for off-highway and marine applications, as well as high-power charging solutions. KREISEL develops high-performance, high-durability batteries that will allow John Deere to provide all-electric vehicles and powertrains to off-highway equipment customers.

Batteries with Dynamic Performance Management utilize patented cell immersion cooling technology and advanced software systems. This technology is designed to meet or exceed industry safety standards and optimize the life and performance of the batteries.

KREISEL battery power levels range from 24 to 63 kWh with 400 or 750 V. Various dimensions allow great flexibility in battery placement. Products may differ from images shown.

Freedom of placement
KREISEL Electric battery systems are engineered to allow flexible orientation and installation options.

Multipack configurations
The battery packs enable stacking for multipack configurations to suit a wide range of vehicle types.

Lifetime
The low temperature spread throughout the module is designed to keep cells within the same temperature range to optimize battery life.

Safety
Intensively tested safety features help prevent thermal propagation.

Performance
The patented KREISEL immersion cooling technology optimizes overall system efficiency.

Electrify It

Putting Electric Power to Work in OEM Applications

- Performance and reliability
- Quiet, easy, and intuitive operation
- Total cost of ownership advantages
- Reduced machine complexity and simplified maintenance
- Technology enablement and scaling

> *"NO MATTER WHAT KIND OF POWER CUSTOMERS NEED, JOHN DEERE AND KREISEL WILL BE PREPARED TO DELIVER THE RELIABILITY AND DURABILITY THEY REQUIRE."*

DR. UDO SCHEFF
President, KREISEL Electric

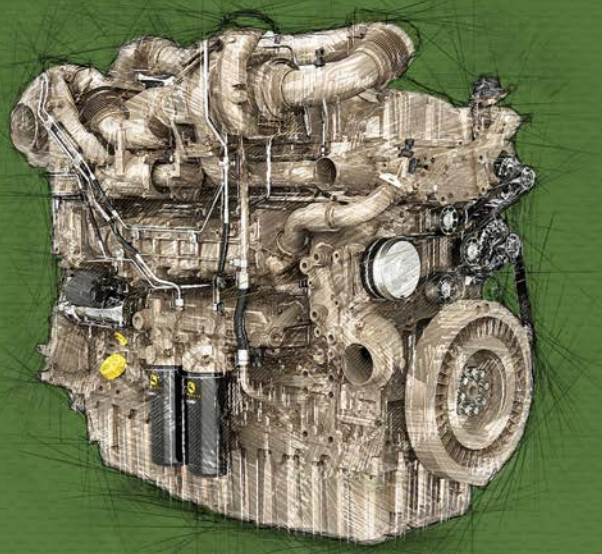
Innovating Power for a Changing Industry

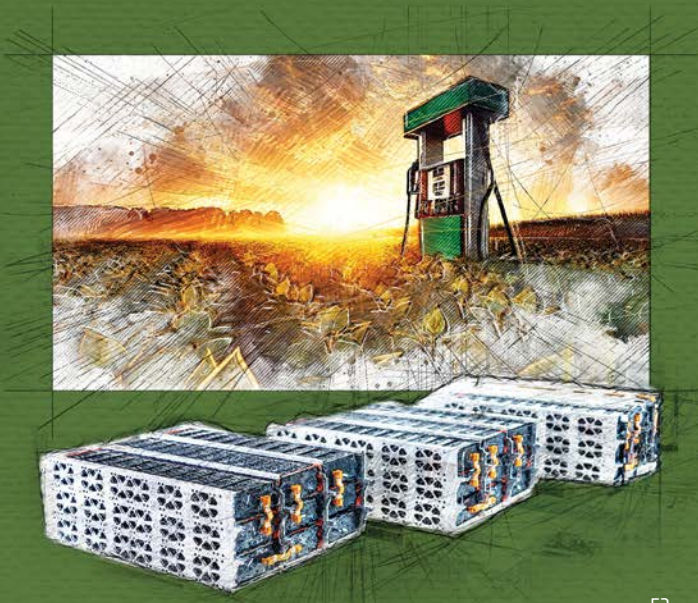
John Deere takes a practical approach to sustainability — balancing power needs, economics, fuel availability, and equipment performance to deliver products that make sense for our customers' businesses.

We are proactively developing various technologies to meet our customers' sustainability and productivity needs.

- **Advanced Diesel Engines**
  Next generation engine platforms are powerful, efficient, and designed to maximize performance.
- **Hybrid-Electric Vehicles (HEV)**
  Leveraging our OEM experience to produce diesel-electric powertrain solutions.
- **Battery-Electric Vehicles (BEV)**
  Developing battery power solutions and charging infrastructure through KREISEL Electric.
- **Renewable Fuels**
  John Deere has invested in technologies to enable its engines to operate using various renewable fuels.

Design concept not available for sale.





RENEWABLE FUELS

John Deere is investing in renewable fuel technologies to reduce emissions in our installed powertrains as well as our next generation engines.

John Deere considers biodiesel, renewable diesel (also known as HVO), and ethanol to be the most promising options for near-term integration into heavy-duty applications.

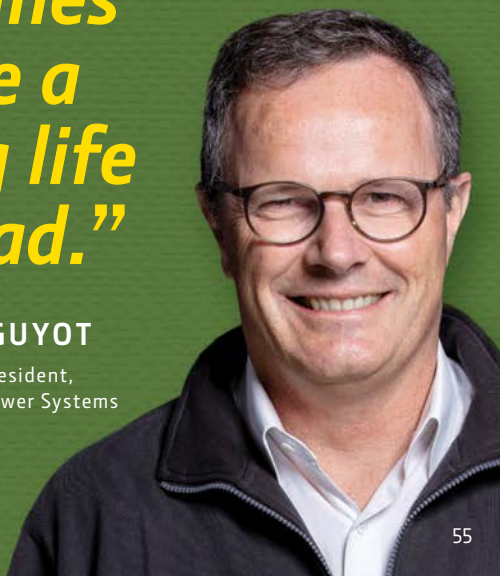
Continuously working to allow higher blends of renewable fuel.

John Deere engines can use 100% renewable diesel and various blends of biodiesel as specified. Stage V engines operated within the European Union may use blends up to 8% (B8). Tier 4/Stage IV/Stage III B engines with exhaust filters can use biodiesel concentrations up to 20% (B20). Tier 3/Stage III A and lower tier engines without exhaust filters can use up to 100% (B100) biodiesel.

*“Thanks to continuous advancements in renewable fuels, **internal combustion engines have a long life ahead.**”*

PIERRE GUYOT

Senior Vice President,
John Deere Power Systems



Ramamotori

SAFETY first

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