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9RT 520

Tractor

- Engine HP: 572 Max / 520 hp Rated
- AutoTrac[™], StarFire[™] receiver, and Gen 4 display integrated
- e18[™] PowerShift Transmission
- Choice of three different cab and visibility packages

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Features

Collapse All

 PowerTech[™] 13.6L (827-cu in.) engine: real world usability, not just power o n paper



13.6L (827-cu in.) engine

The muscle to handle heavy draft disks and rippers, power-hungry air seeders and planters, and large transport loads like grain carts and slurry wagons. The durable design and heavy-duty components you can depend on when you need to get in and get out. All in a Final Tier 4 (FT4) and Stage V compliant package. You get real-world power with the purpose-built 13.6L (827-cu in.) engines from John Deere Power Systems, standard in the 291 to 440 engine kW (390 to 590 engine hp) 9 Series Tractors.

We developed our newest power plant from a clean sheet of paper, starting with stronger castings, beefier bearings, and more robust internal components, all designed to meet the high demands of field operations. We replaced the fuel injectors with a high-pressure common rail (HPCR) fuel system and eliminated the diesel particulate filter (DPF) to boost to fuel efficiency and lower operation and maintenance costs. Integrated coolant and oil passages, along with a new belt-driven water pump, eliminate potential leak points and allow for a less-crowded engine compartment, improving serviceability and reducing debris accumulation.

In redesigning the engine, we also gave it:

9 Series Tractors | 9RT 520 | John Deere US

- Hydraulic valve lash adjusters to maintain valve-lash settings during engine operation, reduce valve train noise and wear, and allow for greater fuel efficiency.
- A hydraulic fan drive for improved cooling capacity with no required maintenance.
- A new integrated wiring harness design featuring a modular layout for reduced vibration, greater reliability, and easier service and diagnostics.
- A rear gear train that integrates fully into the cast-iron block, reducing tiresome engine noise and improving the durability of the crankshaft damper.
- Combination sensors where possible, meaning fewer sensors, connectors, and wires.
- A powerful engine brake that allows operators to use the engine to control tractor and implement speeds while transporting or traveling downhill, reducing wear on the drivetrain brake components.

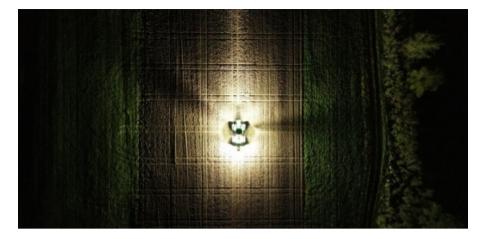
It all adds up to:

- 14 percent more power and 11 percent more torque
- 3 percent lower fuel consumption
- 10 percent lighter
- 27 percent reduction in mean repair time and an estimated \$8,308 savings in service costs over the life of the engine

13.5L (824-CU IN.) ENGINE COMPARED TO 13.6L (827-CU IN.) ENGINE

Feature	13.5L (824-cu in.) engine	13.6L (827-cu in.) engine
Fuel delivery	Electronic unit injectors (EUI)	HPCR
Aftertreatment	Two canisters	One canister
Valve lash adjustment	Manual	Automatic
Engine brake	Not available	Available above 402.7 kW (540 hp)
Wire harness	Single harness	Three short harnesses
Water pump	Gear driven	Belt driven
Gear train	Front mounted	Rear mounted
Fan drive	Vari-Cool™ system	Hydraulically driven

- 9 Series Visibility packages let you run with confidence, dawn until dusk



Ultimate Visibility package at night

Visibility is more than just lighting. It's mirrors where you need them, shades for the blinding late-fall and early-spring sun, wipers to help keep all the glass clear, and integrated camera capability right from the factory. The new 9 Series Tractors let you choose the visibility package that best suits your needs – Select, Premium, or Ultimate with 360-degree light-emitting diode (LED) lighting –so you and your operators can run with all-conditions confidence.

	Select	Premium	Ultimate
Lighting	18 halogen worklights	18 LED worklights	24 LED worklights and eight LED convenience lights*
Mirrors	Mechanical	Electric and heated	Electric, heated, and telescoping
Sunshades	Front	Front, right-hand side, and rear	Front, right-hand side, and rear
Wipers	Front and rear	Front, right-hand side, and rear	Front, right-hand side, and rear
Cameras	Camera ready	Camera ready	Front and rear integrated cameras

*Convenience lights illuminate the corners of the cab for easier entry and exit.

 John Deere integrated solutions: a world of connected technology, right from the factory



Maximizing uptime using connectivity and technology

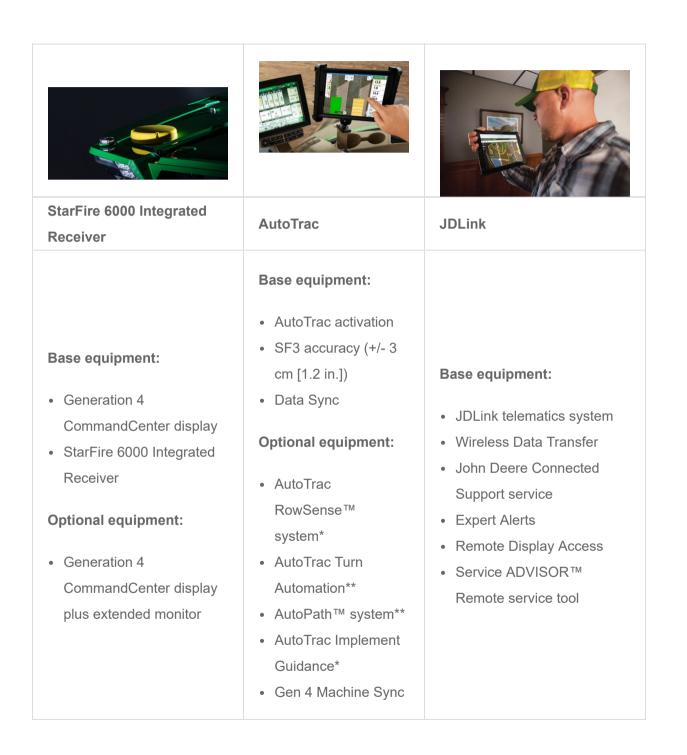
John Deere makes it easy for you to access an entire suite of connected applications, all designed to help you make the most of every seed, every hour, every gallon, and every bit of machine-related information.

Each 9 Series Tractor comes standard with the John Deere StarFire [™] 6000 Integrated Receiver and Generation 4 CommandCenter [™] display; there's no need for setup, installation, or initial global positioning system (GPS) calibration. Integrated AutoTrac[™] assisted steering gives you accurate, scalable guidance for low-stress operation in nearly any conditions and can improve field efficiency by 10 percent or more. The 9 Series Tractors also feature standard JDLink[™] telematics and users can turn on connectivity in the John Deere Operations Center for anytime, anywhere access to critical machine and field information. And every tractor comes from the factory with John Deere Connected Support[™], so you and your dealer can anticipate and address critical system needs.

From here? The sky's the limit. Choose any of our operation-specific applications to help maximize efficiency and productivity during planting, tillage, or other field activities.

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*NOTE: Ordering is temporarily unavailable for the StarFire 6000 Integrated Receiver. John Deere is diligently working to resolve this issue. Please watch the Price Pages and the announcements in the Sales Manual for updates. We apologize for any inconvenience.



*Available with Premium Activation 3.0 **Available with Automation Activation 4.0 - Work at your best with 9 Series Comfort and Convenience packages



Ultimate Comfort and Convenience package (shown on 8R Tractor)

When you're spending dozens of hours per week in the cab, a comfortable operating environment isn't just an option – the right features, in the right places, let you and your operators work at your best, dawn to dusk and beyond.

The 7, 8, and 9 Series Tractors offer three Comfort and Convenience packages to fit your needs: Select, Premium, and Ultimate. But regardless of which package you choose, you'll still get the John Deere CommandARM[™] console that puts critical controls within easy reach. You'll get all the storage space you need for drinks, meals, and other stowable items. And you'll have plenty of outlets to keep your electronics powered.

Comfort and			
Convenience	Select	Premium	Ultimate
packages			

Seat	 Cloth Mechanical controls Mechanical lumbar 8-degree left- hand and 40- degree right-hand swivel 	 Cloth Electronic controls Pneumatic lumbar 25-degrees left- hand and 40- degree right-hand swivel 	 Leather Electronic controls Pneumatic lumbar 25-degree left- hand and 40- degree right-hand swivel Heated/ventilated Massage Adjustable bolsters
Infotainment	 AM/FM Auxiliary and Bluetooth® wireless inputs Four speakers 	 16.5-cm (6.5-in.) touchscreen radio, XM® ready Six speakers with subwoofer 	 16.5-cm (6.5-in.) touchscreen radio, XM ready Six speakers with subwoofer
Business band ready	х	Х	Х
Four USB and one 12-V outlet	X	Х	X
Dual tilt column	Х	х	Х
Footrests		Х	Х
Refrigerator		Х	Х
120-V/300-W three-prong outlet		Х	Х
Carpeted floor mat			Х
Leather- wrapped steering wheel			X

Bluetooth is a trademark of Bluetooth SIG, Inc. XM is a trademark of Sirius XM Radio Inc.

 A range of hydraulic options give you the power and flexibility to take on your toughest applications



Selective control valves (SCVs) on a 9R Tractor

Of course, the 9 Series has the hydraulic muscle you need to push, pull, lift, and power your most demanding implements. But thanks to a range of enhancements to the hydraulic system, these tractors can provide that power at lower engine speeds, saving you fuel while still giving your implements the capacity they need. Regardless of model or configuration, the new 9 Series hydraulic system gives you:

• An increase of almost 40 percent in charge pump capacity, from 54-cc to 75-cc, to help maintain a higher flow at lower engine speeds

- A new swash plate angle sensor to monitor hydraulic flow and pressure and adjust engine speed to meet demand
- An integrated hydraulic pump, filter, and priority valve for fewer and shorter lines, reduced pressure loss, fewer flow restrictions, and an extra level of reliability

And if you depend on implements that need continuous hydraulic power, the 9 Series Tractors are available with Intelligent Power Management (IPM). Using dual pumps and advanced sensor and control technology, IPM provides additional engine and hydraulic power for high-demand applications like air seeding up and over hills or through thick, tough soil.

Add in single and dual pump options and a flexible number rear SCVs, and you can configure a powerful, fuel-efficient hydraulic system to meet the demands of your specific operation without paying for capacity you don't need.



- The new 9 Series: Easy to run, easy to maintain

9RX Tractor

When you're trying to get a field planted before weather moves in, there's no time to hit a scheduled maintenance interval or get smacked with an unexpected repair. That's why we designed the 9 Series for maximum reliability and less inseason maintenance.

9 Series Tractors | 9RT 520 | John Deere US

To start, we simplified as many systems as possible, using components common to other tractor lines and minimizing potential downtime due to parts availability. Then we eliminated as many potential pain points as possible through changes in the cooling, aftertreatment, and diagnostic systems, including:

- Replacing the fan drive system with a maintenance-free hydraulic fan drive
- Streamlining aftertreatment with a single-canister inline system that's simpler and features fewer parts
- Improving uptime by adding better descriptions to diagnostic codes and offering predictive diagnostics through John Deere Expert Alerts
- A front-left service panel for easier access to engine oil check and fill points;
- Offering a 500-hour oil change interval on the John Deere Power Systems 13.6L (827-cu in.) Final Tier 4 (FT4) engine when using approved John Deere oil and filter (the Cummins® QSX 15-L [915-cu in.] engine has a 400-hour engine oil and filter change interval).

Cummins is a trademark of Cummins, Inc.

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Specifications

	Key Specs	
Engine description	John Deere PowerTech™ 13.6L (B20 diesel compatible)	
Engine displacement	13.6 L 827 cu in.	
Rated engine power	382 kW 520 hp	
Maximum engine power	421 kW 572 hp	

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Rated PTO power (hp SAE)	245 kW
	329 hp
_	
Transmission type	John Deere e18™ 18-speed PowerShift™ with
	Efficiency Manager™: 40 km/h
	25 mph
Hydraulic pump rated output	Standard: 208 L/min
Tydraune pump rated output	
	55 gpm
	Optional: 416 L/min
	110 gpm
Rear hitch category (SAE	Category 4N/N: 6804 kg
designation)	15,000 lb
designation)	
	Category 4N/N: 9072 kg
	20,000 lb
Base machine weight	20,582 kg
Sube machine trengite	45,375 lb

Engine specifications

Description	John Deere PowerTech 13.6L (B20 diesel compatible)
Engine type	Diesel, inline, 6-cylinder, wet-sleeve cylinder liners with four valves in-head
Rated speed	2100 rpm
Aspiration	Dual series turbocharger with fixed geometry first stage and wastegated second stage; air-to-air aftercooling and cooled exhaust gas recirculation (EGR)
Emission level	Final Tier 4 (FT4)
After treatment type	Diesel oxidation catalyst (DOC)/selective catalytic reduction (SCR)

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Displacement

13.6 L 827 cu in.

Engine performance

Rated power	382 kW
	520 hp
Rated PTO power (hp SAE)	245 kW
	329 hp
Power boost	10 percent
Maximum engine power	421 kW
	572 hp
Engine peak torque	At 1600 rpm: 2400 Nm 1770 lb-ft
PTO torque rise	38 percent

Transmission

Туре

John Deere e18 18-speed PowerShift with Efficiency Manager: 40 km/h 25 mph

Hydraulic system

Туре

Pump rated output

Closed-center, pressure-and-flow compensated

Standard: 208 L/min 55 gpm Optional: 416 L/min 110 gpm

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Available flow at a single rear SCV

Number of rear selective control valves (SCVs) 9 Series Tractors | 9RT 520 | John Deere US

1.3-cm (1/2-in.) couplers: 132 L/min 35 gpm 1.9-cm (3/4-in.) couplers: 159 L/min 42 gpm

Four to eight factory or field installed Base: four 1.3-cm (1/2-in.) couplers Optional: five to six 1.3-cm (1/2-in.) couplers factory installed Optional: three 1.9-cm (3/4-in.) couplers plus five 1.3cm (1/2-in.) couplers factory installed

SCV control

Electronic

Rear hitch

15,000 lb

20.000 lb

Hitch category (SAE designation)

Maximum lift capacity behind lift points

Sensing type

Category 4N/4: 9072 kg 20,000 lb

Category 4N/N: 6804 kg

Category 4N/N: 9072 kg

Electrohydraulic with draft sensing

Drawbar

Drawbar category

Standard: Category 5 with heavy-duty drawbar support Optional: Category 5

Maximum vertical load

5440 kg 12,000 lb

Rear power take-off (PTO)

Туре

PTO actuation

Final drive type

9 Series Tractors | 9RT 520 | John Deere US

Independent 44 mm (1.75 in.) 20-spline, 1000 rpm

Camso® 4500 and 6500 General Ag Series - friction

Electrohydraulic

Rear axle

Outboard planetary

drive track belts

Standard: 762 mm

Optional: 914 mm

Tracks

Drive type

Track width

Midrollers

Four

30 in.

36 in.

Steering

Туре

Heavy-duty steering pump: 130 cc 7.9 cu in.

Electrical system

Standard: 250 amp

Optional: 330 amp

Alternator size

Battery options

12 V

Working	lights
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Type of bulb in headlight (Halogen, Zenon, LED)

Total cold cranking amps

9 Series Tractors | 9RT 520 | John Deere US

Standard: 18 halogen Optional: 18 or 24 LED plus 8 LED conveninence lights

Standard: halogen, 65 W Optional: LED

3 x 925 CCA Total: 2775 CCA

Operator station

Seat	Degree of seat swivel, left hand 25 degree (angle) Degree of seat swivel, right hand 40 degree (angle) Air suspension
Instructional seat	Standard
Display	Standard: Generation 4 4600 CommandCenter™: 25.4 cm 10 in. Optional: Extended monitor
Radio	Standard: AM/FM stereo with weatherband, remote controls, auxiliary input jack, four speakers and external antenna Optional: Touchscreen radio
Inner cab volume	3.27 m³ 115 cu ft
Cab glass area	6.64 m² 71.47 sq ft

Dimensions

Wheelbase	2947 mm
	116 in.
Overall length	With front weights, excluding hitch and coupler: 6965 mm
	274.2 in.
	With front weights, including hitch and coupler: 7201 mm 283.5 in.
	200.0 m
Drawbar clearance	381 mm
	15 in.
Approximate shipping weight, Open;Cab	20,582 kg 45,375 lb

Weight

Base machine weight	20,582 kg 45,375 lb
Maximum ballast level	24,494 kg 54,000 lb

Capacities

Crankcase oil volume

64 L	
16.9 U.S. gal.	
1324	
350 U.S. gal.	
93.9 L	

24.8 U.S. gal.

Fuel tank

Diesel exhaust fluid (DEF) tank 18.09.21 14:16

Cooling system

Transmission-hydraulic system 9 Series Tractors | 9RT 520 | John Deere US

56.5 L 14.9 U.S. gal.

With 3-point hitch and PTO: 307.8 L 81.3 U.S. gal. Without 3-point hitch and PTO: 300 L 79.3 U.S. gal.

Serviceability

Interval for engine oil change	500 hours
Interval for	1500 hours
Interval for engine coolant	6000 hours
	Precision AG
Guidance	Integrated AutoTrac™
Telematic	Available with JDLink™ hardware, activations, and Ethernet harnesses (availability dependent upon destination)
Remote diagnostics	Available with activated JDLink hardware and activations
	Miscellaneous

Country of manufacture

USA

Additional information

Date collected

1 March 2021

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Accessories and Attachments

Collapse All

Cab Operator's Station

- Accessory Mounting Bracket 9410RWRE343680
- Carpet, Cab Floor 9410RWRE581987
- Cell Phone Mount Kit 9410RWBRE10015
- Clamp Style Mount 9410RWAXE59372
- CommandARM[™] Bracket 9410RWBRE10501
- Floor insulation 9410RWBRE10202
- Foot rests 9410RWBRE10458
- Foot-Operated Speed Control 9410RWBRE10440
- Hook, Harness Routing 9410RWR562310
- Leather Wrapped Steering Wheel 9410RWRE584990
- RAM 1 inch T-slot Ball Mount 9410RWBRE10482
- RAM 1.5 inch T-slot Ball Mount 9410RWBRE10483
- Refrigerator 9410RWRE593672
- Right Window Mounting Bracket and Rail 9410RWBRE10465
- Secondary Hitch Controls 9410RWBRE10437
- Self Leveling Cup Holder 9410RWBRE10152
- Short Vertical Mounting Rail 9410RWBRE10464
- StarFire 6000 Locking Bracket 9410RWBPF11074
- Storage Container with Lid/Ash Tray 9410RWRE275532

- Sunshade 9410RWRE593670
- Tablet Mount Kit 9410RWBRE10255

Connectivity Hardware

- ISO Cab Implement CAN Bus Adapter 9410RWRE322780
- Mounting Bracket, Universal StarFire[™] 9410RWRE588540
- RTK Bracket Kit 9410RWBRE10512

DISPLAY HARDWARE

- Display Harness GS2 / GS3 Display with Video to GreenStar[™] (Round) Co rnerpost 762 mm (30 in.) - 9410RWPFP12435
- Ethernet Adapter Cable (Square to Round) 800 mm (2.5 ft) 9410RWPFP12 950
- GreenStar™/Gen4 254 mm (10 in.) Display Touch Panel Protector Service Kit - 9410RWPF90596
- Harness Original GreenStar[™] Display and Mobile Processor to GreenStar
 [™] 3 or GreenStar[™] 2 (Round) Cornerpost 9410RWPF90686

Drawbar

- Category 5 High Capacity Wide Swing Drawbar Support Kit 9410RWRE310 971
- Drawbar, Ball-type 80 mm, Category 4 9410RWRE283958
- Quick-attach drawbar 9410RWCB21494061
- Scraper Hose Support 9410RWBRE10164

Electrical

- 3-pin octagonal to 3-pin round convenience outlet (flat pins) single device ad apter - 9410RWRE596959
- 6-outlet octagonal powerstrip with pre-installed round convenience outlet (flat pins) - 9410RWRE596958
- 9-Pin Connector for Implement Feedback 9410RWRE67685
- Electrical Connector Assembly, Power Inverter Kit 120VAC/60HZ 300 Watt -9410RWBRE10452
- Harness adapter for CB power connection 9410RWRE597710

Frame

- Tow Cable Kit - Track Tractors - 9410RWBRE10118

Front Weights

- Front Weight Bracket, Tracks - 9410RWBRE10121

Hydraulic Selective Control Valves (SCVs)

- 3/4 In. Selective Control Valve Coupler Kit (Hi-Flow only) 9410RWBRE1010
 7
- 5th and 6th Scraper High Flow Remote Cylinder Selective Control Valve with Breakaway Couplers - 9410RWBRE10109
- Add 5th or 6th Remote Selective Control Valves 9410RWBRE10168

Hydraulics

- Motor Seal Drain Kit, Tracks 9410RWBRE10115
- Power Beyond Coupler Kit 1/2 In. 9410RWBRE10110
- Power Beyond Coupler Kit 3/4 In. 9410RWBRE10111

Lighting

- LED Rear Light Kit 9410RWBRE10446
- LED Roof Mounted Light Kit 9410RWBRE10445

Mirrors

- External Mirrors Conversion Kit, Electrically Adjustable (Wide Angle) 9410R WBRE10478
- Rear View Mirror (Internal) 9410RWRE588734

Radio

- Auxiliary Camera Input Kit for Touch Screen Radio 9410RWBRE10502
- Subwoofer and Tweeter Kit 9410RWBRE10451
- Touchscreen Radio Relocation kit (Alternative Mount) 9410RWBRE10364

Rear Hitch

- Category 4N/3 Quik Coupler Kit 9410RWRE270270
- Category 5 to Category 4 Drawbar Conversion Kit 9410RWRE278847
- Rear Hitch Heavy Duty Greaseable Pin Kit 9410RWBRE10331

Transmission

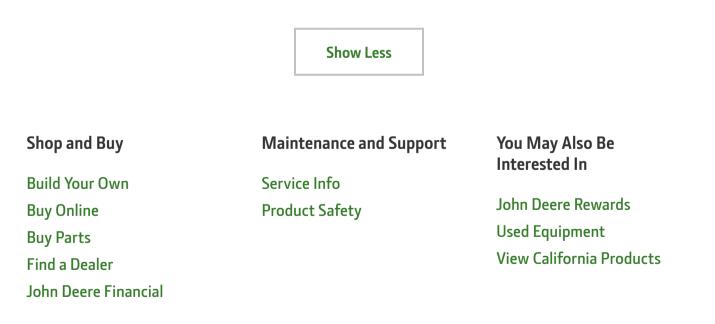
- Back Up Alarm Kit 9410RWRE273380
- Mounting Kit Dual Beam Radar Sensor for Tracks 9410RWRE269398
- Radar with Dual Beam Sensor NA 9410RWRE278980
- Transmission Changeover/Conversion kit 9410RWRE575961

Weights

- Center Link Bracket for Monoblock 9410RWBL15085
- One Left Side Narrow Profile Track Frame Weight Bracket 9410RWRE3411 74
- One Right Side Narrow Profile Track Frame Weight Bracket 9410RWRE341 175
- One Track Frame Weight Bracket 9410RWR199010
- Pick Up Weight 1500 kg (3307 lb) Monoblock 9410RWBL15020
- Pick Up Weight 900 kg (1984 lb) Monoblock 9410RWBL15083
- Weight, front suitcase 43 kg (95 lb) quantity of one 9410RWR127764

Wheel Weights

- Weight, Front Idler Starter 36 kg (80 lb) 9410RWR311921
- Weight, Wheel Kit 2x205 kg (Weights), 2x72 kg (Adapter Weights) 9410RW BL15071



Product features are based on published information at the time of publication. Product features are subject to change without notice. Contact your local John Deere dealer for more information.