Home > Tractors > 4wd Track Tractors > 9R 590 Tractor



9R 590

Tractor

- Engine HP: 649 Max / 590 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 on 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:

- 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.

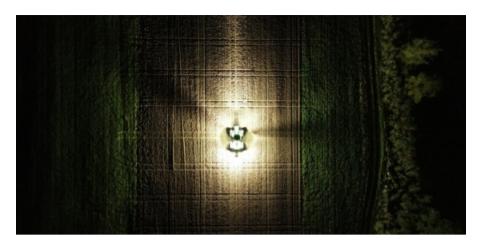
It all adds up to:

- 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.

 Put more power to the ground, more comfortably, with the industry-exclusive HydraCushion™ suspension



9R 640 equipped with HydraCushion suspension

Power that doesn't get to the ground is power that's being wasted. And a bumpy, hoppy ride can quickly drain an operator's energy and productivity. So to help you get the most from every horse under the hood and every hour in the cab, 9R Tractors in wheeled configurations are available with the advanced, industry-exclusive HydraCushion suspension (HydraCushion is standard equipment on 477-kW [640-hp] models).

Along with a proven-reliable suspension design, HydraCushion suspension uses an advanced system of electronic sensors and hydraulic components to keep the chassis and front differential vertically centered, giving you more consistent contact with the ground while reducing road lope and smoothing out the bumps that cause a rough, tiring ride.

 In the field or on the road: adjust steering ratio on-the-go with ActiveComman d Steering (ACS™)



9RX in transport

You don't have to compromise between pinpoint turns in the field and smooth, easy steering during transport – you can have it all with ActiveCommand Steering (ACS), available on all 9R and 9RX Tractors.

ACS lets you choose your steering ratio based on the task at hand. For precise headland maneuvers in the field, choose a tight 3.5 turns lock-to-lock. When you're done in the field, ACS gives you a full five turns for smoother line-holding during road transport. Variable-effort resistance automatically changes with ground speed; you'll notice a lighter touch during low-speed, in-field turns, and increased feedback at transport speeds for more comfortable, confident steering over the road. Plus, ACS works seamlessly with AutoTrac™ guidance systems and is compatible with wide and narrow section width tires as well as wide and narrow belts on 9RX models.

The end result? Reduced overall steering effort and fatigue, no drift and no backlash through the hand-wheel, all with the "connected" feel of a traditional steering column system

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



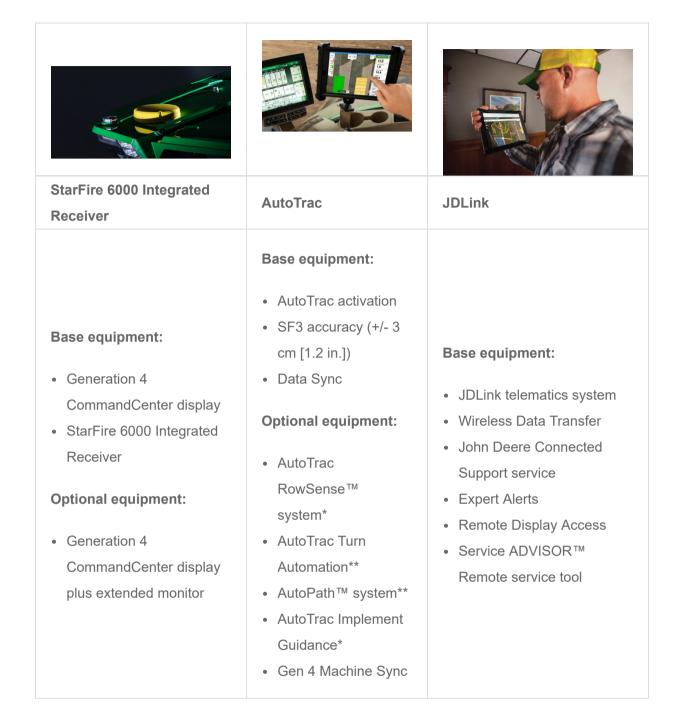
Maximizing uptime using connectivity and technology

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.

*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

Work at your best with 9 Series Comfort and Convenience packages

^{**}Available with Automation Activation 4.0



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	X	Х	X
Four USB and one 12-V outlet	X	X	X
Dual tilt column	X	X	X
Footrests		X	X
Refrigerator		X	X
120-V/300-W three-prong outlet		X	X
Carpeted floor mat			X
Leather- wrapped steering wheel			X

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 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.

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).

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Specifications

	Key Specs	
	ncy specs	
Engine description	John Deere PowerTech™ 13.6L (B20 diesel	
	compatible)	
Engine displacement	13.6 L	
Engine displacement		
	827 cu in.	
Rated engine power	434 kW	
	590 hp	
Maximum engine power	477 kW	
	649 hp	

Rated PTO power (hp SAE) 249 kW

335 hp

Transmission typeJohn Deere e18[™] 18-speed PowerShift[™] with

Efficiency Manager™: 40 km/h

25 mph

Hydraulic pump rated output Standard: 208 L/min

55 gpm

Optional: 416 L/min

110 gpm

Rear hitch category (SAE

designation)

Category 4N/4: 6804 kg

15,000 lb

Category 4N/4: 9072 kg

20,000 lb

Base machine weight 20,856 kg

45,980 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)

Displacement

13.6 L

827 cu in.

Engine performance

Rated power 434 kW

590 hp

Rated PTO power (hp SAE) 249 kW

335 hp

Power boost 10 percent

Maximum engine power 477 kW

649 hp

Optional hydraulic IPM: 459 kW

615 hp

Engine peak torque At 1600 rpm: 2723 Nm 2008 lb-ft

PTO torque rise 38 percent

Transmission

Type John Deere e18 18-speed PowerShift with Efficiency

Manager: 40 km/h

25 mph

Hydraulic system

Type Closed-center, pressure-and-flow compensated

Pump rated output

Standard: 208 L/min

55 gpm

Optional: 416 L/min

110 gpm

Available flow at a single rear SCV

1.3-cm (1/2-in.) couplers: 132 L/min

35 gpm

1.9-cm (3/4-in.) couplers: 159 L/min

42 gpm

Number of rear selective control valves (SCVs)

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 1.3-

cm (1/2-in.) couplers factory installed

SCV control

Electronic

Rear hitch

Hitch category (SAE designation)

Category 4N/4: 6804 kg

15,000 lb

Category 4N/4: 9072 kg

20,000 lb

Maximum lift capacity behind lift points

Category 4N/4: 9072 kg

20,000 lb

Sensing type

Electrohydraulic with draft sensing

Drawbar

Drawbar category

Category 5

Maximum vertical load

5440 kg 12,000 lb

Rear power take-off (PTO)

Type

Independent

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

PTO actuation

Electrohydraulic

Rear axle

Type

Diameter: 120 x 3048 mm

4.72 x 120 in.

Final drive type

Inboard planetary with double-reduction axle

Rear differential lock

Full-locking electrohydraulic

Front axle

Type

Diameter: 120 x 3048 mm

4.72 x 120 in.

Front axle differential lock

Full-locking electrohydraulic

Tires

Turning radius with brakes

Group 47 or Group 48 tires: 6.035 m

19.8 ft

Steering

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Type

Standard: Hydraulic power steering

Optional: ActiveCommand Steering (ACS™)

Electrical system

Alternator size Standard: 250 amp

Optional: 330 amp

Battery options 12 V

Working lights Standard: 18 halogen

Optional: 18 or 24 LED plus 8 LED conveninence

lights

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

Standard: halogen, 65 W

Optional: LED

Total cold cranking amps

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)

Standard: air suspension
Optional: ActiveSeat™ II

Instructional seat Standard

Display Standard: Generation 4 4600 CommandCenter™: 25.4

cm

10 in.

Optional: Extended monitor

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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 3912 mm

154 in.

Overall length With front weights, excluding hitch and coupler: 7945

mm

312.8 in.

With front weights, including hitch and coupler: 8427

mm

331.8 in.

Drawbar clearance Group 48 tires: 527 mm

20.7 in.

Approximate shipping

weight, Open; Cab

20,856 kg

45,980 lb

Weight

Base machine weight 20,856 kg

45,980 lb

Maximum ballast level 30,391 kg

67,000 lb

Capacities

Crankcase oil volume

64 L

16.9 U.S. gal.

Fuel tank

1514 L

400 U.S. gal.

Diesel exhaust fluid (DEF)

tank

120 L

31.7 U.S. gal.

Cooling system

56.5 L

14.9 U.S. gal.

Transmission-hydraulic system

With 3-point hitch and PTO: 227 L

60 U.S. gal.

Without 3-point hitch and PTO: 220 L

58 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

Expand All

Cab Operator's Station

- + Accessory Mounting Bracket 9340RWRE343680
- + Cell Phone Mount Kit 9340RWBRE10015
- + Clamp Style Mount 9340RWAXE59372
- + CommandARM™ Bracket 9340RWBRE10501
- + Fire Extinguisher, Wheel and 4 Track 9340RWBRE10242
- + Floor insulation 9340RWBRE10202
- + Foot rests 9340RWBRE10458
- + Foot-Operated Speed Control 9340RWBRE10440
- + Hook, Harness Routing 9340RWR562310

- + Leather Wrapped Steering Wheel 9340RWRE584990
- + RAM 1 inch T-slot Ball Mount 9340RWBRE10482
- + RAM 1.5 inch T-slot Ball Mount 9340RWBRE10483
- + Refrigerator 9340RWRE593672
- + Right Window Mounting Bracket and Rail 9340RWBRE10465
- + Secondary Hitch Controls 9340RWBRE10437
- + Self Leveling Cup Holder 9340RWBRE10152
- + Short Vertical Mounting Rail 9340RWBRE10464
- + StarFire 6000 Locking Bracket 9340RWBPF11074
- + Storage Container with Lid/Ash Tray 9340RWRE275532
- + Sunshade 9340RWRE593670
- + Tablet Mount Kit 9340RWBRE10255

Connectivity Hardware

- + Front Implement CAN Communication Connector 9340RWRE344751
- + ISO Cab Implement CAN Bus Adapter 9340RWRE322780
- + Mounting Bracket, Universal StarFire™ 9340RWRE588540
- + RTK Bracket Kit 9340RWBRE10512

DISPLAY HARDWARE

- + Display Harness GS2 / GS3 Display with Video to GreenStar™ (Round) Co rnerpost 762 mm (30 in.) 9340RWPFP12435
- + Ethernet Adapter Cable (Square to Round) 800 mm (2.5 ft) 9340RWPFP12 950
- + GreenStar™/Gen4 254 mm (10 in.) Display Touch Panel Protector Service Kit 9340RWPF90596
- + Harness Original GreenStar[™] Display and Mobile Processor to GreenStar [™] 3 or GreenStar[™] 2 (Round) Cornerpost 9340RWPF90686

Drawbar

- + Drawbar, Ball-type 80 mm, Category 4 9340RWRE283958
- + Scraper Hose Support 9340RWBRE10164

Electrical

- + 3-pin octagonal to 3-pin round convenience outlet (flat pins) single device ad apter 9340RWRE596959
- + 6-outlet octagonal powerstrip with pre-installed round convenience outlet (flat pins) 9340RWRE596958
- + 9-Pin Connector for Implement Feedback 9340RWRE67685
- + Electrical Connector Assembly, Power Inverter Kit 120VAC/60HZ 300 Watt 9340RWBRE10452
- + Harness adapter for CB power connection 9340RWRE597710

Engine

+ Intelligent Power Management - 9340RWBRE10507

Hydraulic Selective Control Valves (SCVs)

- + 3/4 In. Selective Control Valve Coupler Kit (Hi-Flow only) 9340RWBRE1010 7
- + 3/4 Inch Coupler Adapter Conversion 9340RWBRE10486
- + 5th and 6th Scraper High Flow Remote Cylinder Selective Control Valve with Breakaway Couplers 9340RWBRE10109
- + Add 5th or 6th Remote Selective Control Valves 9340RWBRE10168

Hydraulics

- + Hitch Auxiliary Raise Kit DR 9340RWBRE10203
- + Motor Case Drain Kit, DR Wheel 9340RWBRE10113
- + Power Beyond Coupler Kit 1/2 In. 9340RWBRE10110
- + Power Beyond Coupler Kit 3/4 In. 9340RWBRE10111

Lighting

- + LED Rear Light Kit 9340RWBRE10446
- + LED Roof Mounted Light Kit 9340RWBRE10445

Mirrors

- + External Mirrors Conversion Kit, Electrically Adjustable (Wide Angle) 9340R WBRE10477
- + Rear View Mirror (Internal) 9340RWRE588734

Radio

- + Auxiliary Camera Input Kit for Touch Screen Radio 9340RWBRE10502
- + Subwoofer and Tweeter Kit 9340RWBRE10451
- + Touchscreen Radio Relocation kit (Alternative Mount) 9340RWBRE10364

Rear Hitch

- + Category 4N/3 Quik Coupler Kit 9340RWRE270270
- + Category 5 to Category 4 Drawbar Conversion Kit 9340RWRE278847
- + Electro-Hydraulic 3 Point Hitch, DR for wheel and 4 Track Tractors 9340RW BRE10160
- + Rear Hitch Heavy Duty Greaseable Pin Kit 9340RWBRE10332

Transmission

- + Back Up Alarm Kit 9340RWRE273380
- + Mounting Kit Dual Beam Radar Sensor, Wheels 9340RWRE269592
- + Radar with Dual Beam Sensor NA 9340RWRE278980

Weights

- + Center Link Bracket for Monoblock 9340RWBL15085
- + Pick Up Weight 1500 kg (3307 lb) Monoblock 9340RWBL15020
- + Pick Up Weight 900 kg (1984 lb) Monoblock 9340RWBL15083
- + Weight, front suitcase 43 kg (95 lb) quantity of one 9340RWR127764

Wheel Weights

- + Starter Weight, Wheel, 72 kg (159 lb) 9340RWR167153
- + Weight, Wheel 205 kg (452 lb) 9340RWR207782
- + Weight, Wheel 625 kg (1378 lb) 9340RWR553540
- + Weight, Wheel Kit 2x205 kg (2x452 lb) 9340RWBL15076
- + Weight, Wheel Kit 2x205 kg (Weights), 2x72 kg (Adapter Weights) 9340RW BL15071

Wheels and Hubs

- + Rear Dual Hub Extension, 127 mm (5 in.) 9340RWAR194744
- + Rear Dual Hub Extension, 254 mm (10 in.) 9340RWAR190666
- + Rear Dual Hub Extension, 330 mm (13 in.) 9340RWAR190668
- + Rear Dual Hub Extension, 381 mm (15 in.) 9340RWAR190669

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