

8R/8RT Series Tractors

224 to 298 kW (305 to 405 hp) 97/68 EC with Intelligent Power Management



8R Series Tractors – Specifications

	8270R	8295R	8320R	8345R	8370R
ENGINE PERFORMANCE					
COUNTRIES to select a maximum of 4					
Rated PTO power (hp SAE) at rated engine speed (2100 erpm), hp (kW)	225 (167)	247 (184)	269 (200)	291 (216)	313 (233)
Rated Engine power at 2100 engine rpm (97/68EC), hp (kW)	270 (199)	295 (217)	320 (235)	345 (254)	370 (272)
Max Engine power at 1900 engine rpm (97/68EC), hp (kW)	297 (218)	324 (239)	352 (259)	380 (279)	407 (299)
Nominal Engine Power with IPM at 2100 engine rpm (97/68EC), hp (kW)	305 (224)	327 (240)	355 (261)	380 (279)	405 (298)
Max Engine Power with IPM at 1900 engine rpm (97/68EC), hp (kW)	316 (232)	332 (244)	368 (271)	394 (290)	420 (309)
Rated Engine power at 2100 engine rpm (ECE-R24), hp (kW)	259 (191)	283 (208)	307 (226)	331 (244)	355 (261)
Max Engine power at 1900 engine rpm (ECE-R24), hp (kW)	285 (210)	312 (229)	338 (249)	364 (268)	391 (287)
Max Engine Power with IPM at 1900 engine rpm (ECE R24), hp (kW)	303 (223)	319 (234)	353 (260)	378 (278)	403 (296)
Intelligent Power Management (IPM), hp	35	32	35	35	35
PTO Torque Rise, %	40	40	40	40	36
Maximum PTO Torque (nominal), Nm	1068	1173	1277	1381	1446
PTO Power Bulge, %	10	10	10	10	10
Engine Peak Torque (Nm) (40% @ 1600 rpm)	1264	1381	1498	1615	1685
Constant Power Range (rpm)	1500–2100	1500–2100	1500–2100	1500–2100	1550–2100
Manufacturer	John Deere PowerTech PSX 9.0 L (B20 Diesel Compatible)				
Rated Speed, rpm	2100				
Type	Diesel, in-line, 6-cylinder, wet-sleeve cylinder liners with 4 valves-in-head				
Aspiration	Dual Series Turbocharger w/fixed geometry first stage-variable geometry second stage – air-to-air aftercooling and cooled exhaust gas recirculation				
Displacement, l	9.0 L				
Bore and stroke, mm	118.4 x 136				
Filter system	Two Stage with water separator and service indicator light				
TRANSMISSION OPTIONS					
PowerShift					
16-speed PowerShift; 16F, 5R with APS (Auto PowerShift)	Standard (42 km/h@ 2050 erpm with group 49 tyres, 42 km/h@ 2160 erpm with group 48 tyres, 39.9 km/h@ 2210 erpm with group 47 tyres)			na	
John Deere AutoPowr					
John Deere AutoPowr IVT 0.050–42 km/h	Available (42 km/h@ 1360 ECO erpm with group 49 tyres, 42 km/h@ 1434 ECO erpm with group 48 tyres, 42 km/h@ 1511 ECO rpm with group 47 tyres)			Standard (42 km/h@ 1360 ECO erpm with group 49 tyres, 42 km/h@ 1434 ECO erpm with group 48 tyres, 42 km/h@ 1511 ECO rpm with group 47 tyres)	
John Deere AutoPowr IVT 0.050–50 km/h	Available (50 km/h@ 1625 ECO erpm with group 49 tyres, 50 km/h@ 1713 ECO erpm with group 48 tyres, 50 km/h@ 1805 ECO rpm with group 47 tyres)				

	8270R	8295R	8320R	8345R	8370R
AXLES					
Rear Axles Final Drives			Rack-and-Pinion or Flange Axles		
110 x 3010 mm diameter long, single taper hub	Available			na	
110 x 3010 mm diameter long, dual taper hub	Available			na	
120 x 3010 mm diameter long, dual taper hub			Available		
120 x 2438 mm diameter short, dual taper hub			Available		
Flange Axle 335 mm bolt circle			Available		
Rear Wheel Equipment	Group 47/48/49 tyres available as Singles/Duals/Triples – See dealer for tyre size selection and limitations				
Front Axles					
1300 Series MFWD – tread range 60 to 88 in. (1524 to 2235 mm) 5 step drop		Standard		na	
1500 Series MFWD – tread range 60 to 144 in. (1524 to 3657 mm) 4 or 5 step drop			Available w/wo Duals		
ILS – tread range 60 to 144 in. (1524 to 3657 mm) 5 or 6 step drop		Available w/wo Duals		Standard w/wo Duals	
ILS/1500 3 m tread spacing available		Field Installed Option: 3 metre tread spacing available with front ballast limitations (no duals allowed)			
ILS – suspension travel		plus or minus 4.92 in. (125 mm) at tread centreline for 5 step ratio axle at 1880 mm tread			
ILS with front brakes, avaialble with 40 km/h, standard with 50 km/h		Available w/wo Duals			
ELECTRICAL SYSTEM (two batteries in parallel)					
Alternator/Battery			200 amps / 12 Volt		
Total cold cranking amps			1850 (2-925CCA grp 31 batteries)		
STEERING					
Type		Standard: 406 mm Steering Wheel Ratios/Turns Lock to Lock – ILS (18.9:1/4.3) –1500 MFWD (22.8:1 /5) –1300 MFWD (14.2:1 /3.4)			
Active Command Steering (ACS) w/electric pump back-up		Available: 345 mm Steering Wheel, Variable ratio 15:1 to 23:1 (3.1 – 5.0 turns lock to lock) w/Dynamic Road Wheel Offset Control and passive tactile feedback			
1300 Series MFWD		Limited Slip		na	
1500 Series MFWD			Full-locking electro-hydraulic (actuated at same time as rear diff-lock)		
ILS			Full-locking electro-hydraulic (actuated at same time as rear diff-lock)		
HYDRAULIC SYSTEM					
Type			Closed-centre, pressure/flow compensated		
Main pump, axial piston (displacement)			85cc Standard, Dual pump (85cc plus 35cc) Available		
Maximum pressure			2,958 psi (20,400 ± 300 kPa)		
Rated flow, 85cc pump, lpm			227.1 lpm		
Rated flow, Dual Pump 85cc plus 35cc, lpm			321 lpm		
Rear Selective control valves with 1/2 inch ISO couplers			4 Standard, 5 and 6 Available		
Rear Selective control valves with 3/4 inch and 1/2 inch ISO couplers			5 Available (SCV 1 : 3/4 inch coupler, SCV 2–5 : 1/2 inch couplers)		
Available flow at a single Rear SCV, lpm			132 lpm 1/2 in couplers, 153 lpm 3/4 in coupler		
Front SCV's			1 SCV Standard with Front Hitch, 2 SCV's Available with Front Hitch		
Available flow at Front SCV's, lpm			96 lpm		
Take out oil capacity		Standard: Hydraulic Oil Take-out capacity is 40 liters @ 2 lps. Field Installed Option: Take out capacity is 90 litres @ 2 lps and requires auxiliary tank			

8R Series Tractors – Specifications

	8270R	8295R	8320R	8345R	8370R
3-POINT HITCH – REAR					
Category 3/3N with Quik-Coupler Standard – All Axle Diameters Allowed	Standard: 6169 kg (8679 kg Maximum Lift Capacity)			na	
Category 3/3N with Quik-Coupler Available – 120 mm Axle Required	Available: 7983 kg (11214 kg Maximum Lift Capacity)			na	
Category 4N/3 with Quik-Coupler Available – 120 mm Axle Required	na			Available: 6396 kg (8984 kg Maximum Lift Capacity)	
Category 4N/3 with Quik-Coupler Available – 120 mm Axle Required	Available: 8482 kg (11933 kg Maximum Lift Capacity)			Standard: 8482 kg (11933 kg Maximum Lift Capacity)	
Category 3/3N with Hook Style Ends – All Axle Diameters (Only Sway Blocks)	Available: 6804 kg (9480 kg Maximum Lift Capacity)			na	
Category 3/3N with Hook Style Ends – 120 mm Axle Only (Sway Blocks or Deluxe Stabilisers)	Available: 7801 kg (10960 kg Maximum Lift Capacity)			na	
Category 4N/3 with Hook Style Ends – 120 mm Axle (Sway Blocks or Deluxe Stabilisers)	Available: 8618 kg (12124 kg Maximum Lift Capacity)			Available: 8618 kg (12124 kg Maximum Lift Capacity)	
Drawbar					
Cat 3 1837 kg–2700 kg Maximum Vertical Load dependent on drawbar position	Standard			na	
Cat 4 2245 kg Maximum Vertical Load	Available			Standard	
Cat 4 w/HD Support 4990 kg Maximum Vertical Load			Available		
3 in 1 Hitch Rails (not compatible with Cat4 HD)			Available		
Wagon Hitch			Available		
Ball hitch			Available		
Piton Hitch			Available		
Pick-up Hitch with Cat 3 Drawbar			Available		
Rear PTO			Independent		
1 – 3/4 in., 20-spline, 1000 rpm			Standard		
1 – 3/4-in., 20-spline, 1000 rpm; capable of 1 – 3/8 in. 540/1000 rpm		Available			na
1 – 3/4 in., 20 spline, 1000 rpm / 1000E RPM			Available		
PTO Speed @ Engine RPM	(1000 PTO rpm @ 2003 engine rpm, 1000 ECO PTO rpm @ 1596 engine rpm, and 540 PTO rpm @ 1817 engine rpm for PST) (1000 PTO rpm @ 2000 engine rpm, 1000 ECO PTO @ 1594 engine rpm, and 540 PTO rpm @ 1814 engine rpm for IVT)				
3-POINT HITCH – FRONT – Category 3N					
Standard lift capacity	Available: Cat. 3N Ground Engaging Front Hitch, 5200 kg Lift Capacity				
FRONT PTO			Requires ILS axle and IVT Transmission		
1 – 3/4 in., 20-spline, 1000 rpm, Clockwise Rotation (When Facing PTO)			Available		
1 – 3/8-in., 21-spline, 1000 rpm; Clockwise Rotation (When Facing PTO)			Available		
1 – 3/4 in., 20-spline, 1000 rpm, Counter-Clockwise Rotation (When Facing PTO)			Available		
1 – 3/8-in., 21-spline, 1000 rpm, Counter-Clockwise Rotation (When Facing PTO)			Available		
1 – 3/8-in., 6-spline, 1000 rpm, Counter-Clockwise Rotation (When Facing PTO)			Available**		
PTO Speed @ Engine RPM (1:2 ratio)	1000 PTO RPM @ 2000 ERPM				
PTO Power (SAE hp)	112 kW (150 hp) maximum output				

**Available dependent upon destination

	8270R	8295R	8320R	8345R	8370R
CAB					
Cab glass area, m²			6.52		
Cab volume, m³			3.597		
MISCELLANEOUS					
AutoTrac Ready			Standard		
Modular Telematics Gateway (MTG)		Available JDLink Select & Ultimate and Ethernet harnesses (availability dependent upon destination)			
Service ADVISOR Remote			Capable with JDLink Select & Ultimate		
CommandCenter Video with 4100 Display			Single video input (Tyco Connector PN 776536-1) for camera using PAL or NTSC signal. Integrated behind rear cab cover. Camera and extension harness available through parts.		
CommandCenter Video with 4600 Display			Four video inputs (Tyco Connector PN 776536-1) for camera using PAL or NTSC signal. Integrated behind rear cab cover. Camera and extension harness available through parts.		
CAPACITIES					
Fuel Tank, l			719		
Cooling System, l			43.8		
Crankcase oil volume					
1300 MFWD, l	25			na	
1500 MFWD, l			28		
ILS, l			27.5		
Transmission, differential, hydraulic system (MFWD / ILS), l			140 / 165		
1300 MFWD axle housing, l	13.6			na	
1500 MFWD axle housing, l			18.7		
1300 MFWD / 1500 MFWD wheel hubs, each, l			3.8		
ILS wheel hubs, each, l	3.8			5.6	
DIMENSIONS AND WEIGHTS					
Wheelbase MFWD / ILS, mm			3080 / 3050		
MFWD / ILS axle clearance, mm			686 / 590		
Turning Radius – 380/85R34 group 42 tyres @ 60" spacing, 1300, m	5.4			na	
Turning Radius – 380/85R34 group 42 tyres @ 60" spacing, ILS, m			5.42		
Turning Radius – 380/80R38 group 43 tyres @ 60" spacing, ILS, m			5.77		
Turning Radius – 600/70R30 group 43 tyres @ 78" spacing, ILS, m			5.82		
Turning Radius – 600/70R30 group 43 tyres @ 74.1" spacing ILS (~2.5 m overall width), m			6.14		
Turning Radius – 650/60R34 group 44 tyres @ 82" spacing ILS (~2.73 m overall width), m			6.31		
ILS/IVT/flange axle/front weight support/Cat4 hitch with Ball/Hook style ends/3 in 1 with Piton hitch/710/70R42 singles/600/70R30 fronts, kg			11841		

8RT Series Tractors – Specifications

	8320RT	8345RT	8370RT
ENGINE PERFORMANCE			
COUNTRIES to select a maximum of 4!			
Rated PTO power (hp SAE) at rated engine speed (2100 erpm), hp (kW)	264 (196)	286 (213)	308 (229)
Rated Engine power at 2100 engine rpm (97/68EC), hp (kW)	320 (235)	345 (254)	370 (272)
Max Engine power at 1900 engine rpm (97/68EC), hp (kW)	352 (259)	380 (279)	407 (299)
Nominal Engine Power with IPM at 2100 engine rpm (97/68EC), hp (kW)	355 (261)	380 (279)	405 (298)
Max Engine Power with IPM at 1900 engine rpm (97/68EC), hp (kW)	368 (271)	394 (290)	420 (309)
Rated Engine power at 2100 engine rpm (ECE-R24), hp (kW)	307 (226)	331 (244)	355 (261)
Max Engine power at 1900 engine rpm (ECE-R24), hp (kW)	338 (249)	364 (268)	391 (287)
Max Engine Power with IPM at 1900 engine rpm (ECE R24), hp (kW)	353 (260)	378 (278)	403 (296)
Intelligent Power Management (IPM), hp	35	35	35
PTO Torque Rise, %	40	40	36
Maximum PTO Torque (nominal), Nm	1253	1358	1422
PTO Power Bulge, %	10	10	10
Engine Peak Torque (Nm) (40 % @ 1600 rpm)	1498	1615	1685
Constant Power Range, rpm	1500–2100	1500–2100	1550–2100
Manufacturer		John Deere PowerTech PSX 9.0 L (B20 Diesel Compatible)	
Rated Speed, rpm		2,100	
Type		Diesel, in-line, 6-cylinder, wet-sleeve with 4 valve-in-head	
Displacement, l		9.0 L	
Bore and stroke, mm		118.4 x 136	
Filter system		Two Stage with water separator and service indicator light	
TRANSMISSION OPTIONS			
John Deere AutoPowr		Standard	
John Deere AutoPowr (0.050–42 km/h)		(42 km/h@ 1958 ECO erpmc)	
REAR AXLES			
FINAL DRIVES			
Tread spacing, Standard, mm		Inboard planetary	
Tread spacing, Available, mm		1828.8 to 3048	
Track type		2844.8 to 4064	
Track widths, Standard, mm		Camoplast DURABUILT 3500 and 5500 Series Track Belts	
Track widths, Available, mm		635	
Drive Wheel Total Width		406, 457, 610 and 762	
Mid-Rollers Total Width		15 in. required with 16 in., 18 in., and 24 in. tracks / 24 in. Available with 25 in. and 30 in. belts	
Poly mid rollers		Standard : 15 in. required with 16 in., 18 in., and 24 in. tracks / 24 in. required with 25 in. and 30 in. belts	
Suspension System		Available : with 16 in., 18 in., and 24 in. tracks	
Suspension Travel at front idlers (120" tread spacing), mm		403	
GROUND CONTACT AREA			
406 mm, m²		2.04	
457 mm, m²		2.30	
609 mm, m²		3.07	
635 mm, m²		3.19	
762 mm, m²		3.83	
STATIC GROUND PRESSURE for 16067 kg vehicle			
406 mm, kPa		78.59	
457 mm, kPa		69.87	
609 mm, kPa		52.40	
635 mm, kPa		50.30	
762 mm, kPa		41.91	

	8320RT	8345RT	8370RT
ELECTRICAL SYSTEM (two batteries in parallel)			
Alternator/Battery		200 amps / 12 Volt	
Total cold cranking amps		1850 (2-925CCA grp 31 batteries)	
STEERING			
Type	Speed-sensitive, hydrostatic, differential –406 mm diameter Strg wheel –1.8 turns lock to lock		
BRAKES			
Type	Power, hydraulic wet-disc with retractors – powered back-up		
HYDRAULIC SYSTEM			
Type	Closed-centre, pressure/flow compensated		
Main pump, axial piston (displacement)	85cc Standard		
Maximum pressure	2958 psi (20,400 ± 300kPa)		
Rated flow, 85cc pump, lpm	227.1		
Rear Selective control valves with 1/2 inch ISO couplers	4 Standard, 5 and 6 Available		
Rear Selective control valves with 3/4 inch and 1/2 inch ISO couplers	5 Available (SCV 1 : 3/4 inch coupler, SCV 2-5 : 1/2 inch couplers)		
Available flow at single SCV	132 lpm 1/2 in couplers, 153 lpm 3/4 in coupler		
Take out oil capacity	Hydraulic take out capacity is 35 litres @ 2 lps		
3-POINT HITCH – REAR			
Type	Lower Draft shaft bending bar Electro-hydraulic sensing		
Category 4N/3 w/Quik-Coupler	Standard: 6803 kg (9572 kg Maximum Lift Capacity)		
Category 4N/3 w/Quik-Coupler	Available: 9702 kg (12,762 kg Maximum Lift Capacity)		
Category 4N/3 with Hook Style Ends – 120 mm Axle (Sway Blocks or Deluxe Stabilizers)	Standard: 8800 kg (11,869 kg Maximum Lift Capacity)		
Drawbar			
Cat 4 2245 kg Maximum Vertical Load	Standard		
Cat 4 w/HD Support 4990 kg Maximum Vertical Load	Available		
Rear PTO	Independent		
1 – 3/4 in., 20-spline, 1000 rpm	Standard		
PTO Speed @ Engine RPM	1000 PTO rpm @ 2000 engine rpm		
CAB			
Cab glass area, m²	6.52		
Cab volume, m³	3.597		
MISCELLANEOUS			
AutoTrac Ready	Standard		
Modular Telematics Gateway (MTG)	Available JDLink Select & Ultimate and Ethernet harnesses (availability dependent upon destination)		
Service ADVISOR Remote	Capable with JDLink Select & Ultimate		
CommandCenter Video with 4100 Display	Single video input (Tyco Connector PN 776536-1) for camera using PAL or NTSC signal. Integrated behind rear cab cover. Camera and extension harness available through parts.		
CommandCenter Video with 4600 Display	Four video inputs (Tyco Connector PN 776536-1) for camera using PAL or NTSC signal. Integrated behind rear cab cover. Camera and extension harness available through parts.		
CAPACITIES			
Fuel Tank, l	758		
Cooling System, l	43.8		
Crankcase oil volume, l	25		
Transmission, differential, hydraulic system, l	180		
DIMENSIONS AND WEIGHTS			
Wheelbase, mm	2515		
Average standard weight (AutoPowr, 30 l fuel, 25 in. tracks, no weights), kg	16,578		
Max Ballast Level, kg	17,690 – See OM for specific ballasting instructions		
Max Payload Capacity, kg	19,958 – See OM for specific weight guidelines		