



2021 Ram 1500 SPECIFICATIONS

*Specifications are based on the latest product information available at the time of publication.
All dimensions are in inches (millimeters) unless otherwise noted.
All dimensions measured at curb weight with standard tires and wheels.*

GENERAL INFORMATION

Vehicle Type	Quad Cab and Crew Cab: 4x2, 4x4
Assembly Plant	Sterling Heights Assembly Plant, Sterling Heights, Michigan
EPA Vehicle Class	Standard Pickup

BODY/CHASSIS

Layout	4x2 — Longitudinal, front engine
	4x4 — Longitudinal, front engine, transfer case
Construction	4x2 — Ladder-type frame, steel cab, double-wall steel pickup box
	4x4 — Ladder-type frame, steel cab, double-wall steel pickup box

ENGINE: 3.6-LITER PENTASTAR V-6 WITH eTORQUE

Type and Description	60-degree gasoline V-6 with variable valve timing, V-type, liquid-cooled
Hybrid Battery	48-volt, 12-cell lithium-ion, nickel manganese cobalt (NMC) graphite chemistry, .43 kWh
Belt-starter Generator	9kW power, 90 lb.-ft. launch torque
Displacement	220 cu. in. (3,604 cu. cm)
Bore x Stroke	3.78 x 3.27 (96.0 x 83.0)
Valve System	Chain-driven DOHC, 24 valves and hydraulic end-pivot roller rockers
Fuel Injection	Sequential, multiport, electronic, returnless
Construction	Aluminum deep-skirt block, aluminum alloy heads
Compression Ratio	11.3:1
Power	305 hp (224 kW) @ 6,400 rpm
Torque	269 lb.-ft. (364 N•m) @ 4,800 rpm
Max. Engine Speed	6,400 rpm (electronically limited)
Fuel Requirement	Unleaded regular, 87 octane



Oil Capacity	6.0 quarts (5.7 liters)
Coolant Capacity	14.0 quarts (13.25 liters)
Emission Controls	Dual three-way catalytic converters, heated oxygen sensors
EPA Fuel Economy mpg (city/hwy)	20/25

ENGINE: 3.0-LITER EcoDiesel V-6

Type and Description	90-degree diesel V-6
Displacement	182 cu. in. (2,988 cu. cm)
Bore x Stroke	3.27 x 3.60 (83 x 92)
Valve System	Chain driven DOHC, 24 valves
Fuel Injection	Common rail, 29,000 psi (2000 bar), solenoid injectors
Construction	Cast-iron block, aluminum alloy heads
Compression Ratio	16.0:1
Power	260 hp (194 kW) @ 3,600 rpm
Torque	480 lb.-ft. (651 N•m) @ 1,600 rpm
Max. Engine Speed	5,800 rpm
Fuel Requirement	Ultra-low sulfur diesel
Oil Capacity	10.5 quarts (7.8 liters)
Coolant Capacity	12.0 quarts (11.4 liters)
Emission Controls	Cooled EGR, oxidation catalyst, diesel particulate filter, SCR with urea injection
EPA Fuel Economy mpg (city/hwy)	22/32

ENGINE: 5.7-LITER HEMI® V-8

Type and Description	90-degree gasoline, V-8 with variable cam timing
Displacement	345 cu. in. (5,654 cu. cm)
Bore x Stroke	3.92 x 3.58 (99.5 x 90.9)
Valve System	Variable-cam timing, pushrod-operated overhead valves, 16 valves, hydraulic lifters with roller followers
Fuel Injection	Sequential, multiport, electronic, returnless
Construction	Deep-skirt cast-iron block with cross-bolted main bearing caps, aluminum alloy heads with hemispherical combustion chambers



Compression Ratio	10.5:1
Power	395 hp (291 kW) @ 5,600 rpm
Torque	410 lb.-ft. (556 N•m) @ 3,950 rpm
Max. Engine Speed	5,800 rpm
Fuel Requirement	Unleaded mid-grade, 89 octane — recommended Unleaded regular, 87 octane — acceptable
Oil Capacity	7.0 quarts (6.6 liters)
Coolant Capacity	14.0 quarts (13.33 liters)
Emission Controls	Three-way catalytic converters, heated oxygen sensors and internal engine features
EPA Fuel Economy mpg (city/hwy)	15/22

ENGINE: 5.7-LITER HEMI V-8 eTORQUE

Type and Description	90-degree gasoline V-8 with variable cam timing
Hybrid Battery	48-volt, 12-cell lithium-ion, nickel manganese cobalt (NMC) graphite chemistry, .43 kWh
Belt-starter Generator	12kW power, 130 lb.-ft. launch torque
Displacement	345 cu. in. (5,654 cu. cm)
Bore x Stroke	3.92 x 3.58 (99.5 x 90.9)
Valve System	Variable-cam timing, pushrod-operated overhead valves, 16 valves, hydraulic lifters with roller followers
Fuel Injection	Sequential, multiport, electronic, returnless
Construction	Deep-skirt cast-iron block with cross-bolted main bearing caps, aluminum-alloy heads with hemispherical combustion chambers
Compression Ratio	10.5:1
Power	395 hp (291 kW) @ 5,600 rpm
Torque	410 lb.-ft. (556 N•m) @ 3,950 rpm
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Fuel Requirement	Unleaded mid-grade, 89 octane — recommended Unleaded regular, 87 octane — acceptable
Oil Capacity	7.0 quarts (6.6 liters)
Coolant Capacity	14.0 quarts (13.33 liters)
Emission Controls	Three-way catalytic converters, heated oxygen sensors and internal engine features



EPA Fuel Economy mpg (city/hwy) 17/23

TRANSMISSION: TORQUEFLITE 850RE EIGHT-SPEED AUTOMATIC

Availability	Standard with 3.6-liter Pentastar V-6
Description	Adaptive electronic control, automatic or Electronic Range Select (ERS) manual control. Five-clutch-pack design with only two open clutches in any gear. Torque converter lock with turbine torsional damper for low lock-up speeds in 1st through 8th gear
Gear Ratios	
1 st	4.71
2 nd	3.14
3 rd	2.10
4 th	1.67
5 th	1.29
6 th	1.00
7 th	0.84
8 th	0.67
Reverse	3.30
Axle Ratios	3.21, 3.55, 3.92 (Rebel only)

TRANSMISSION: TORQUEFLITE 8HP75 EIGHT-SPEED AUTOMATIC

Availability	Standard with 3.0-liter EcoDiesel V-6, 5.7-liter HEMI V-8 and 5.7-liter V-8 with eTorque
Description	Adaptive electronic control, automatic or ERS manual control. Five-clutch-pack design with only two open clutches in any gear. Torque converter lock with turbine torsional damper for low lock-up speeds in 1st through 8th gear
Gear Ratios	
1 st	4.71
2 nd	3.14
3 rd	2.10
4 th	1.67
5 th	1.29
6 th	1.00



7 th	0.84
8 th	0.67
Reverse	3.30
Axle Ratios	3.21, 3.55 (excluding 5.7-liter HEMI V-8), 3.92

TRANSFER CASE: BW 48-12 PART-TIME

Availability	3.6-liter Pentastar V-6 4x4 with eTorque, 3.0-liter EcoDiesel V-6, 5.7-liter HEMI V-8 4x4 and 5.7-liter HEMI V-8 with eTorque assist
Shift Mechanism	Electric
Available Speeds	Two-speed
Operating Modes	2WD High; 4WD High, Locked; Neutral; 4WD Low, Locked
Low-range Ratio	2.64
Center Differential Type	None

TRANSFER CASE: BW 48-11 ON-DEMAND

Availability	3.0-liter EcoDiesel V-6, 5.7-liter HEMI V-8 4x4 and 5.7-liter HEMI V-8 with eTorque assist
Shift Mechanism	Electric
Available Speeds	Two-speed
Operating Modes	2WD High; 4WD Auto; 4WD High, Locked; Neutral; 4WD Low, Locked
Low-range Ratio	2.64
Center Differential Type	None

AXLES

Front	215mm
Rear	235mm (standard) with available open, limited-slip or electronic-locking differential 256mm (optional max tow with Dana Super 60 center section)
Available Ratios	3.21, 3.55, 3.92



ELECTRICAL SYSTEM

Architecture	Powernet
Alternator	160-amp, 180-amp, 220-amp (Special Services Package)
Battery	Group 94R, low-maintenance H7 730 CCA

SUSPENSION

Front	Upper and lower A-arms, coil springs, twin-tube shock absorbers and stabilizer bar. Optional air suspension replaces twin-tube shock absorbers and progressive rate coil springs
Rear	Five-link with track bar, progressive rate coil springs, stabilizer bar, twin-tube shock absorbers, solid axle. Optional air suspension replaces progressive rate coil springs

BRAKES

Front	
Size and Type	14.9 x 1.2 (378 x 30) vented disc with 2.2 in. (57 mm) two-piston pin-slider caliper and anti-lock braking system (ABS)
Swept Area	493.6 sq.in. (3,184 sq.cm)
Rear	
Size and Type	14.8 x 0.87 (375 x 22) disc with 2.2 in. (57 mm) single-piston pin-slider caliper and ABS
Swept Area	367.6 sq.in. (2,371.9 sq.cm)
Power-assist	Dual-rate, tandem diaphragm vacuum

STEERING

Power assist	Electric power steering
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AIR BAGS

Quad Cab	6
Crew Cab	6



CARGO BOX

NOMINAL BOX SIZE	5FT., 7IN. (CREW)	6FT., 4IN. (REGULAR, QUAD OR CREW)
SAE volume, cu. ft. (cu m)	53.9 (1.5)	61.5 (1.7)
Length-at-Floor, Tailgate Closed	67.4 (1,711)	76.3 (1,937)
Cargo Width	66.4 (1,687)	66.4 (1,687)
Distance Between Wheelhouses	51.0 (1,295)	51.0 (1,295)
Depth	21.4 (543)	21.5 (545)
Tailgate Opening Width	60.0 (1,525)	60.0 (1,525)

EXTERIOR DIMENSIONS

QUAD CAB PICKUP, 6FT., 4IN. BOX

MODEL – TIRE SIZE	4x2 - 275/55R20	4x4 - 275/55R20
Wheelbase (nominal)	140.5 (3,569)	140.5 (3,569)
Track, Front	68.5 (1,741)	68.5 (1,741)
Track, Rear	68.1 (1,729)	68.1 (1,729)
Overall Length	228.9 (5,814)	228.9 (5,814)
Overall Width	82.1 (2,084)	82.1 (2,084)
Overall Height	77.6 (1,971)	77.7 (1,973)

GROUND CLEARANCE	4x2 - 275/55R20	4x4 - 275/55R20
Front Axle	7.8 (199)	8.2 (208)
Rear Axle	8.7 (221)	8.7 (221)
Open Tailgate to Ground	34.6 (979)	34.4 (875)
Pickup Body Height	21.4 (545)	21.4 (545)
Approach Angle, degrees	18.1	18.9
Departure Angle, degrees	25.2	25.0



Ramp Breakover Angle Without Skid Plate, degrees	19.5	19.9
Ramp Breakover Angle With Skid Plate, degrees	—	17.8
Ground Clearance Without Skid Plate	8.4 (213)	8.7 (221)
Ground Clearance With Skid Plate	—	8.2 (208)
Fuel Tank Capacity	23-gal. (87-liter) (standard) 26-gal. (98-liter) (standard) 33-gal. (125-liter) (optional)	23-gal. (87-liter) (standard) 26-gal. (98-liter) (standard) 33-gal. (125-liter) (optional)

EXTERIOR DIMENSIONS

QUAD CAB PICKUP, 6FT., 4IN. BOX – AIR SUSPENSION, 4x2 AND 4x4

TIRE SIZE: 275/55R20

SUSPENSION MODE	ENTRY / EXIT	NORMAL RIDE HEIGHT	OFF ROAD 1	OFF ROAD 2
Wheelbase (nominal)	140.5 (3,569)	140.5 (3569)	140.5 (3,569)	140.5 (3,569)
Track, Front	68.5 (1,741)	68.5 (1,741)	68.5 (1,741)	68.5 (1,741)
Track, Rear	68.1 (1,729)	68.1 (1,729)	68.1 (1,729)	68.1 (1,729)
Overall Length	228.9 (5,814)	228.9 (5,814)	228.9 (5,814)	228.9 (5,814)
Overall Width	82.1 (2,084)	82.1 (2,084)	82.1 (2,084)	82.1 (2,084)
Overall Height	75.9 (1,927)	77.7 (1,973)	78.7 (1,998)	79.7 (2,025)
Front Axle	8.2 (208)	8.2 (208)	8.2 (208)	8.2 (208)
Rear Axle	8.7 (221)	8.7 (221)	8.7 (221)	8.7 (221)
Open Tailgate to Ground	32.9 (836)	34.4 (875)	35.1 (893)	36.4 (925)
Pickup Body Height	21.4 (545)	21.4 (545)	21.4 (545)	21.4 (545)
Approach Angle, degrees	14.4	18.9	21.5	23.1
Departure Angle, degrees	22.5	25.0	25.9	27.3
Ramp Breakover Angle Without Skid Plate, degrees	16.5	19.9	21.8	23.5



Ramp Breakover Angle With Skid Plate, degrees	14.4	17.8	19.7	21.3
Ground Clearance Without Skid Plate	6.7 (169)	8.7 (221)	9.9 (251)	10.7 (273)
Ground Clearance With Skid Plate	6.1 (156)	8.2 (208)	9.4 (238)	10.2 (260)
Fuel Tank Capacity	23-gal. (87-liter) (standard) 26-gal. (98-liter) (standard) 33-gal. (125-liter) (optional)			

EXTERIOR DIMENSIONS

CREW CAB PICKUP

MODEL – TIRE SIZE	4x2 – 275/55R20		4x4 – 275/55R20	
	5FT., 7IN.	6FT., 4IN.	5FT., 7IN.	6FT., 4IN.
BOX LENGTH				
Wheelbase (nominal)	144.6 (3,672)	153.5 (3,898)	144.6 (3,672)	153.5 (3,898)
Track, Front	68.5 (1,741)	68.5 (1,741)	68.5 (1,741)	68.5 (1,741)
Track, Rear	68.1 (1,729)	68.1 (1,729)	68.1 (1,729)	68.1 (1,729)
Overall Length	232.9 (5,916)	241.8 (6,142)	232.9 (5,916)	241.8 (6,142)
Overall Width	82.1 (2,084)	82.1 (2,084)	82.1 (2,084)	82.1 (2,084)
Overall Height	77.5 (1,968)	77.4 (1,966)	77.6 (1,971)	77.5 (1,968)
GROUND CLEARANCE	5FT., 7IN.	6FT., 4IN.	5FT., 7IN.	6FT., 4IN.
Front Axle	7.8 (199)	7.8 (199)	8.2 (209)	8.1 (207)
Rear Axle	8.6 (220)	8.7 (220)	8.7 (220)	8.6 (220)
Open Tailgate to Ground	34.5 (877)	34.4 (875)	34.3 (872)	34.3 (871)
Pickup Body Height	21.4 (543)	21.4 (545)	21.4 (543)	21.4 (545)
Approach Angle, degrees	18.0	18.1	19.0	18.9
Departure Angle, degrees	25.1	25.0	24.9	24.9



Ramp Breakover Angle Without Skid Plate, degrees	19.0	18.4	19.5	18.7
Ramp Breakover Angle With Skid Plate, degrees	—	—	17.5	16.7
Ground Clearance Without Skid Plate	8.3 (211)	8.3 (212)	8.7 (222)	8.6 (220)
Ground Clearance With Skid Plate	—	—	8.2 (209)	8.1 (207)
Fuel Tank Capacity	23-gal. (87-liter) (standard) 26-gal. (98-liter) (standard) 33-gal. (125-liter) (optional)			

EXTERIOR DIMENSIONS

CREW CAB, 5FT., 7IN. BOX – AIR SUSPENSION, 4x2 AND 4x4

TIRE SIZE: 275/55R20

SUSPENSION MODE	ENTRY / EXIT	NORMAL RIDE HEIGHT	OFF ROAD 1	OFF ROAD 2
Wheelbase (nominal)	144.6 (3,672)	144.6 (3,672)	144.6 (3,672)	144.6 (3,672)
Track, Front	68.5 (1,741)	68.5 (1,741)	68.5 (1,741)	68.5 (1,741)
Track, Rear	68.1 (1,729)	68.1 (1,729)	68.1 (1,729)	68.1 (1,729)
Overall Length	232.9 (5,916)	232.9 (5,916)	232.9 (5,916)	232.9 (5,916)
Overall Width	82.1 (2,084)	82.1 (2,084)	82.1 (2,084)	82.1 (2,084)
Overall Height	75.8 (1,926)	77.6 (1,971)	78.6 (1,996)	79.6 (2,023)
Front Axle	8.2 (209)	8.2 (209)	8.2 (209)	8.2 (209)
Rear Axle	8.7 (220)	8.7 (220)	8.7 (220)	8.7 (220)
Open Tailgate to Ground	32.8 (833)	34.3 (872)	35.0 (890)	36.3 (923)
Pickup Body Height	21.4 (543)	21.4 (543)	21.4 (543)	21.4 (543)
Approach Angle, degrees	14.6	19.0	21.7	23.3
Departure Angle, degrees	22.4	24.9	25.8	27.2
Ramp Breakover Angle Without Skid Plate, degrees	16.2	19.5	21.4	23.0



Ramp Breakover Angle With Skid Plate, degrees	14.2	17.5	19.3	21.0
Ground Clearance Without Skid Plate	6.7 (170)	8.7 (222)	9.9 (252)	10.8 (273)
Ground Clearance With Skid Plate	6.2 (157)	8.2 (209)	9.4 (239)	10.3 (261)
Fuel Tank Capacity	23-gal. (87-liter) (standard) 26-gal. (98-liter) (standard) 33-gal. (125-liter) (optional)			

EXTERIOR DIMENSIONS

CREW CAB, 6FT., 4IN. BOX – AIR SUSPENSION, 4x2 AND 4x4

TIRE SIZE: 275/55R20

SUSPENSION MODE	ENTRY / EXIT	NORMAL RIDE HEIGHT	OFF ROAD 1	OFF ROAD 2
Wheelbase (nominal)	153.5 (3,898)	153.5 (3,898)	153.5 (3,898)	153.5 (3,898)
Track, Front	68.5 (1,741)	68.5 (1,741)	68.5 (1,741)	68.5 (1,741)
Track, Rear	68.1 (1,729)	68.1 (1,729)	68.1 (1,729)	68.1 (1,729)
Overall Length	241.8 (6,142)	241.8 (6,142)	241.8 (6,142)	241.8 (6,142)
Overall Width	82.1 (2,084)	82.1 (2,084)	82.1 (2,084)	82.1 (2,084)
Overall Height	75.7 (1,922)	77.5 (1,968)	78.4 (1,993)	79.5 (2,019)

GROUND CLEARANCE	ENTRY / EXIT	NORMAL RIDE HEIGHT	OFF ROAD 1	OFF ROAD 2
Front Axle	8.1 (207)	8.1 (207)	8.1 (207)	8.1 (207)
Rear Axle	8.6 (220)	8.6 (220)	8.6 (220)	8.6 (220)
Open Tailgate to Ground	32.7 (832)	34.3 (871)	35.0 (889)	36.3 (922)
Pickup Body Height	21.4 (545)	21.4 (545)	21.4 (545)	21.4 (545)
Approach Angle, degrees	14.5	18.9	21.5	23.1
Departure Angle, degrees	22.7	24.9	25.8	27.1
Ramp Breakover Angle Without Skid Plate, degrees	15.5	18.7	20.6	22.1



Ramp Breakover Angle With Skid Plate, degrees	13.5	16.7	18.5	20.1
Ground Clearance Without Skid Plate	6.6 (168)	8.6 (220)	9.8 (250)	10.7 (271)
Ground Clearance With Skid Plate	6.1 (155)	8.1 (207)	9.3 (237)	10.2 (259)
Fuel Tank Capacity	23-gal. (87-liter) (standard) 26-gal. (98-liter) (standard) 33-gal. (125-liter) (optional)			

INTERIOR DIMENSIONS

ACCOMMODATIONS

MODEL	QUAD CAB	CREW CAB
Seating Capacity, F/R	3/3	3/3

FRONT	QUAD CAB	CREW CAB
Headroom	40.9 (1,038)	40.9 (1,038)
Legroom	40.9 (1,040)	40.9 (1,040)
Shoulder Room	66.0 (1,676)	66.0 (1,676)
Hip Room	63.4 (1,610)	63.4 (1,610)
Seat Travel	8.7 (220)	8.7 (220)

Recliner Range (degrees) Total travel 71 degrees (from full forward)
18 degrees forward (from design)
53 degrees rearward (from design)

REAR	QUAD CAB	CREW CAB
Headroom	39.2 (995)	39.8 (1,011)
Legroom	35.6 (903)	45.2 (1,147)
Shoulder Room	65.7 (1,668)	65.7 (1,670)
Hip Room	63.4 (1,610)	63.4 (1,611)



INTERIOR VOLUME	QUAD CAB	CREW CAB
Front – cu. ft. (cu m)	63.9 (1.8)	63.9 (1.8)
Rear – cu. ft. (cu m)	53.3 (1.5)	68.5 (1.9)

STEERING SPECIFICATIONS

QUAD CAB PICKUP

MEASUREMENT	2WD SHORT BED	2WD LONG BED	4WD SHORT BED	4WD LONG BED	4WD REBEL
Wheelbase (nominal; in/mm)	140.5 / 3,569	140.5 / 3,569	140.5 / 3,569	140.5 / 3,569	140.5 / 3,569
Overall Ratio	16.3:1	16.3:1	16.3:1	16.3:1	17.8:1
Steering Wheel Turns (lock-to-lock)	3.1	3.1	3.1	3.1	3.4
18-in. Tire Turning Diameter (ft. / M)*	46.2 / 14.1	46.2 / 14.1	46.2 / 14.1	46.2 / 14.1	46.2 / 14.1
20-in. Tire Turning Diameter (ft. / M)*	45.1 / 13.74	45.1 / 13.74	45.1 / 13.74	45.1 / 13.74	NA

CREW CAB PICKUP

MEASUREMENT	2WD SHORT BED	2WD LONG BED	4WD SHORT BED	4WD LONG BED	4WD REBEL
Wheelbase (nominal)	144.6 / 3,672	153.5 / 3,898	144.6 / 3,572	153.5 / 3,898	144.6 / 3,572
Overall Ratio	16.3:1	15.5:1	16.3:1	15.5:1	17.8:1
Steering Wheel Turns (lock-to-lock)	3.1	2.9	3.1	2.9	3.4
18-in. Tire Turning Diameter (ft. / M)*	46.2 / 14.08	48.7 / 14.84	46.2 / 14.08	48.7 / 14.84	46.2 / 14.1
20-in. Tire Turning Diameter (ft. / M)*	46.2 / 14.08	48.7 / 14.84	46.2 / 14.08	48.7 / 14.84	NA

* = Curb-to-curb turning diameter is measured at the outside of the tires at curb height. Turning diameters and steering wheel turns, lock-to-lock may differ with optional tires and wheels.

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