2023 FORD F-150® RAPTOR™ LINEUP

TECHNICAL SPECIFICATIONS



Preproduction 2023 F-150 Raptor R shown. Available late 2022.

BODY

Construction/materials	High-strength steel frame, aluminum cabin and bed
Body configuration	SuperCrew®
Final assembly location	Dearborn Truck Plant

DRIVETRAIN

Layout	Longitudinally mounted front-engine 10-speed automatic transmission, 2-speed torque on-demand 4x4 with mechanical lock; electronic locking rear differential with 4.10 axle

ENGINE

	Raptor	Raptor R
Configuration	High-output 3.5-liter twin-turbocharged, intercooled 60-degree overhead-cam EcoBoost V6	High-output 5.2-liter supercharged, intercooled 90-degree overhead-cam V8
Block/head material	Aluminum block, aluminum heads	Cast aluminum block and head with plasma transfer wire arc cylinder liners
Displacement	3.5 liters (213 cubic inches)	5.2 liters (315 cubic inches)
Bore x stroke	3.64 in. x 3.41 in.	3.70 in. x 3.66 in.
Compression ratio	10.5:1	9.5:1
Valvetrain	DOHC, four valves per cylinder, twin independent variable camshaft timing	DOHC, four valves per cylinder, twin independent variable camshaft timing
Pistons material	Aluminum alloy	Forged aluminum
Ignition system	Distributor-less with coil-on-plug	Distributor-less with coil-on-plug
Recommended fuel	Premium unleaded	Premium unleaded
Fuel delivery	Port fuel injection with direct injection	Port fuel injection with twin high-flow fuel pumps
Engine control system	Electronic	Ford powertrain control module
Oil capacity	6 quarts	11.5 quarts 5W-50 full synthetic with filter
Coolant capacity	13.0 liters	12.0 liters (engine), 3.1 liters (supercharger)
SAE horsepower*	450 @ 5,850 rpm	700 @ 6,650 rpm
SAE torque*	510 lb.-ft. @ 3,000 rpm	640 lb.-ft. @ 4,250 rpm
Build location	Cleveland, Ohio	Dearborn, Michigan

ELECTRICAL

Alternator	Standard single 240A	Standard single 240A
Battery group, CCA	H7 AGM 80AH 800CCA	H7 AGM 80AH 800CCA

TRANSFER CASE

Type	Hi-lock transfer case; two-speed automatic four-wheel-drive system with neutral towing capability	Hi-lock transfer case; two-speed automatic four-wheel-drive system with neutral towing capability
4-high drive ratio	1:1	1:1
4-low drive ratio	2.64:1	2.64:1

*Horsepower and torque ratings based on premium fuel per SAE J1349® standard. Your results may vary.

BUILT Ford TOUGH

FINAL DRIVE

	Raptor	Raptor R
Final drive front/rear axle ratios	4.10:1	4.10:1
Final drive front axle ratio (optional)	4.10:1	4.10:1

TRANSMISSION

	10-speed SelectShift® Automatic	
Configuration	Electronically controlled hydraulic 10-speed automatic	
Gear ratios	First	4.69
	Second	2.98
	Third	2.14
	Fourth	1.76
	Fifth	1.52
	Sixth	1.27
	Seventh	1
	Eighth	0.85
	Ninth	0.69
	10th	0.63
	Reverse	4.86
	Cooling	Warm up unit with thermostatic fin cooler

SUSPENSION

Front configuration	Independent double-wishbone with coil-over shock and cast aluminum lower control arm
Front shock absorber type/diameter	High-output, gas-pressurized, electronically controlled continuously variable compression damping FOX Racing Shox™, 3.1-inch damper, 0.875-inch rod diameter (standard), 1.0-inch rod diameter with optional 37-inch tires (standard with Raptor R)
Rear configuration	Five-link coil with Panhard rod
Front travel	14.0-inch (standard), 13.0-inch with optional 37-inch tires (standard with Raptor R)
Rear shock absorber type/diameter	High-output, gas-pressurized, electronically controlled continuously variable compression damping FOX Racing Shox™, 3.1-inch damper, 0.875-inch rod diameter
Rear travel	15.0-inch (standard), 14.1-inch with optional 37-inch tires (standard with Raptor R)

STEERING

	Raptor	Raptor R
Type	Electric power-assisted	Electric power-assisted
Ratio	17.2:1	17.2:1
Turning circle (curb to curb)	35-in. tires – 48.0 ft. 37-in. tires – 50.0 ft.	37-in. tires – 50.0 ft.

BRAKES

Front type	Power antilock vented disc	Power anti-lock vented disc
Booster type	Electronically controlled brake boost	Electronically controlled brake boost
Front rotor diameter/thickness/material	350 x 34 mm Nitro Tough iron	350 x 34 mm Nitro Tough iron
Front caliper configuration	2 x 51 mm sliding caliper	2 x 51 mm sliding caliper
Front pad material	FER9213	FER9213
Front swept area	51,547 mm^2	51,547 mm^2
Rear type	Power antilock vented disc	Power antilock vented disc
Rear rotor diameter/thickness/material	336 x 20 mm Nitro Tough iron	336 x 20 mm Nitro Tough iron
Rear caliper configuration	1 x 54 mm sliding eiPB	1 x 54 mm sliding eiPB
Rear pad material	GA9105	GA9105
Rear swept area	40,998 mm^2	40,998 mm^2
Parking/emergency brake	25.5 kN electronic parking brake	25.5 kN electronic parking brake

FUEL CAPACITY

SuperCrew	36 gallons (Raptor and Raptor R)

FUEL ECONOMY

	EPA-estimated fuel economy rating		
	City	Highway	Combined
2022 Raptor	15 mpg	18 mpg	16 mpg
2022 Raptor without Start/Stop	14 mpg	18 mpg	15 mpg
2022 Raptor with 37-in. tires	15 mpg	16 mpg	15 mpg
2022 Raptor with 37-in. tires without Start/Stop	14 mpg	16 mpg	15 mpg
2023 Raptor R without Start/Stop	TBD	TBD	TBD

SAFETY/CONTROL SYSTEMS

	Raptor	Raptor R
ABS/stability control	Four-wheel antilock brakes, AdvanceTrac with Roll Stability Control	Four-Wheel Anti-Lock Brakes, AdvanceTrac® with Roll Stability Control™ (RSC®)
Airbags	Front, driver and passenger Front, driver and passenger seat-mounted side Safety Canopy® side curtains Front, driver and passenger knee	Front, driver and passenger Front, driver and passenger seat-mounted side Safety Canopy® side curtains Front, driver and passenger knee
Chassis safety	Tire Pressure Monitoring System (TPMS), SOS Post-Crash Alert System™	Tire Pressure Monitoring System (TPMS), SOS Post-Crash Alert System™

WHEELS AND TIRES

Standard	17 x 8.5-inch cast aluminum wheels with bright machined face and Magnetic painted pockets, LT315/70R17 BFGoodrich® All-Terrain T/A® KO2 Tires	17 x 8.5-inch forged aluminum beadlock-capable wheels, Matte Black 10 painted wheel with Magnetic painted ring, available Code Orange ring, L37x12.50R17LT BFGoodrich All-Terrain T/A KO2 Tires
Available	17 x 8.5-inch unique pattern forged aluminum beadlock-capable wheels, Magnetic painted wheel and ring, 37x12.50R17LT BFGoodrich All-Terrain T/A KO2 Tires Load Range "C"- 116S	
Spare (Under-bed mounted)	Full-size matching spare wheel and tire	Full-size matching spare wheel and tire

LIGHTING

Headlamps	Standard LED quad-beam with daytime running lamp or optional adaptive LED projector with automatic leveling, dynamic bending and daytime running lamp
Taillamps	LED
Auxiliary	Daytime running lamp, cargo lamp, integrated marker lights, tailgate LED, LED side-mirror spotlights, LED cargo box lights, Rigid™ LED fog lamps and off-road driving lamp package (optional)

EXTERIOR DIMENSIONS

	SuperCrew with 35-inch tires	SuperCrew with 37-inch tires/Raptor R
Wheelbase	145.4	145.4
Overall length	232.6	232.6
Overall width	96.0	96.0
Width w/o mirrors	86.6	87.0
Overall height	79.8	80.6
Track width, front	74.0	74.3
Track width, rear	73.6	73.9
Ground clearance	12.0	13.1
Approach angle	31.0 degrees	33.1 degrees
Departure angle	23.9 degrees	24.9 degrees
Breakover angle	22.7 degrees	24.4 degrees
Open tailgate to ground	37.0	37.8

INTERIOR DIMENSIONS (INCHES UNLESS OTHERWISE NOTED)

	Raptor	Raptor R
Seating	Five	Five
Front headroom	40.8	40.8
Maximum front legroom	43.9	43.9
Front shoulder room	66.6	66.6
Front hip room	62.5	62.5
Rear headroom	40.4	40.4
Maximum rear legroom	43.6	43.6
Rear shoulder room	65.8	65.8
Rear hip room	62.6	62.6

CAPACITIES (INCHES UNLESS OTHERWISE NOTED)

Length at floor	67.1	67.1
Width at wheelhouse	50.6	50.6
Maximum width inside box	65.2	65.2
Rear opening width	60.3	60.3
Cargo volume	52.8 cu. ft.	52.8 cu. ft.
Maximum payload	1,400 lbs.	1,400 lbs.
Maximum conventional towing	8,200 lbs.	8,700 lbs.

TECHNOLOGY

Standard	Ford PowerUp over-the-air-updates, FordPass® Connect (with remote lock/unlock, vehicle status check, schedule remote start times, Trailer Theft Alert, Trailer Light Check and other truck features), 12-inch digital productivity screen, 12-inch touch screen, SYNC® 4, Intelligent Access with push-button start, SecuriCode™ keyless entry keypad, Remote Start System, SiriusXM® with 360L, 4G LTE with Wi-Fi® hotspot, MyKey®, Onboard 400W outlet, MyMode™, pre-wired overhead auxiliary switches with under-hood distribution box, Reverse Sensing System and Adaptive Cruise Control
Off-road	Terrain Management System™, Trail Control™, Trail 1 Pedal Drive, Trail Turn Assist
Available	2.0-kilowatt Pro Power Onboard (Raptor only), connected built-in navigation, 360-degree camera with split-view display, 18-speaker B&O sound system Unleashed by Bang & Olufsen with HD Radio™ and rain-sensing wipers, Pro Trailer Hitch Assist

FORD CO-PILOT360™ TECHNOLOGIES

Standard	Auto Hold, auto on/off headlamps, auto high-beam headlamps, Forward Collision Warning and Dynamic Brake Support, Hill Start Assist, Pre-Collision Assist with Automatic Emergency Braking (with Pedestrian Detection), rearview camera with Dynamic Hitch Support, Blind Spot Information System with Cross-Traffic Alert, Trailer Coverage and Reverse Brake Assist
Available	Active Drive Assist Prep Kit, Distance Alert/Distance Indication, Forward Sensing System, Pro Trailer Backup Assist and Trailer Reverse Guidance

WARRANTY

Bumper-to-bumper	Three years/36,000 miles	Three years/36,000 miles
Powertrain	Five years/60,000 miles	Five years/60,000 miles
Aluminum body panels	Five years/unlimited miles	Five years/unlimited miles
Corrosion, sheetmetal (perforation only excluding aluminum)	Five years/unlimited miles	Five years/unlimited miles
Paint adhesion	Five years/unlimited miles	Five years/unlimited miles
Roadside assistance	Five years/60,000 miles	Five years/60,000 miles