

Luxurious absolute animal

JEEP DELIVERS THE QUICKEST AND MOST POWERFUL SUV EVER BY JOE SAGE

“Hey, you oughta put that Hellcat engine in a Jeep!” That’s easy to say, and most of us probably thought of it sooner than later, once the Dodge Challenger SRT Hellcat and then Charger SRT Hellcat were introduced.

But seriously, how irresistible would that be? A vehicle that seats five roomily, tows 7200 pounds, has over eight inches of ground clearance, a sturdy four-wheel-drive powertrain and has won more awards than we can count? And Jeep has already done a Grand Cherokee SRT, right?

Such a thing is not even a dare to the engineers at Jeep and SRT, just another great idea, now fully executed. Although the Trackhawk bears the handiwork of SRT Powertrain Engineering, rather than branding this an SRT Hellcat, as with the Dodge siblings, they’ve grabbed a clever idea from the Jeep stable itself: if the top dog off-road Jeep is a Trailhawk, then this will be a Trackhawk.

We flew to Maine to talk to the development team, then give the new 707-hp supercharged

Jeep Grand Cherokee Trackhawk a good workout on the scenic two-lanes of New England, and most significantly at the brand new Club Motorsports track facility near Tamworth, New Hampshire.

Powertrain. Even with the Hellcats at hand, developing the Trackhawk’s powertrain was no simple matter, with the SUV some 20 percent heavier than a Challenger. SRT Powertrain Engineering senior manager Jamie Standing describes three major challenges in development: packaging such a powertrain into the existing Grand Cherokee; adding the level of refinement this customer expects versus the Hellcats; and dealing with very high G loads at launch. It takes point-by-point precision problem-solving akin to a NASA mission.

A new air induction system avoids the prominent hood scoops of the Hellcats. Front foglights were deleted for engine oil cooling air intakes on one side, positive air flow supercharger induction on the other. “Form follows function,” says Joe

Kubina, SRT’s chief engineer on the Trackhawk. “It’s one hundred percent engineering, but it still looks like classic Jeep.” A new low pressure, high flow clean air tube feeds the supercharger 30,000 liters of air a minute (about 1,000 cu.ft.) at full engine power (with the supercharger running up to 11.6 psi, with a drive ratio of 2.36:1 and maximum speed of 14,600 rpm). A Helmholtz resonator is added to the air induction system, creating a more refined character for the characteristic supercharger whine. “We didn’t want to eliminate it,” says Standing. “We’re quite proud of it, but wanted to make sure the Jeep customer was quite pleased by the overall sound quality.”

Idle stability is provided through a complex set of engineering solutions including improved air distribution below the charge air cooling system, as well as modified cam inlet overlap and timing.

A 1.4 G launch will push engine oil to the back of an oil pan very quickly, so they have engineered a new one with horizontal and vertical baffling to limit sloshing and maintain even distribution.

New exhaust manifolds developed from high nickel content cast iron have very high temperature capabilities—950° C (1740 F)—



thanks to a very low coefficient of thermal expansion and very high thermal fatigue strength.

Grand Cherokee Trackhawk has the first application of FCA’s new second-gen Torqueflite 8HP95 eight-speed transmission, able to handle 1100 Nm (about 860 lb-ft) of torque at the input shaft, via an electronically modulated torque converter with high-strength brazed blades. The unit also has improved shift response, durability and efficiency. This is connected to a new Jeep Quadra-Trac system with single-speed active transfer case and a new electronic limited-slip rear differential. This unit was shortened to accommodate the longer transmission, with a wider chain, redesigned forged steel sprockets, four-pinion geometry for higher torque capacity and a four-point axle mount for better distribution of reaction loads.

The rear axle presented its own challenges, leading to a new half-shaft with higher strength to fit within the same package size, a new eight-ball CV joint outboard, and a bar shaft made from aerospace grade ultra high strength low alloy vacuum melted steel—300M for short.

and town beast, the Grand Cherokee Trackhawk interior is outfitted with premium soft-touch materials, sexy light black chrome finishes, carbon fiber touches and new user-definable instrumentation. A 7-inch driver information cluster features the tach in the middle and a 200-mph speedo at left. The center stack’s 8.4-inch Uconnect touchscreen includes Trackhawk-specific Performance Pages with a variety of performance timers, gauges and readouts, including a new engine dyno screen with instant horsepower, torque and transmission gear (and a snapshot feature to save your heroics to USB). Available entertainment systems include 506-watt, nine-speaker Alpine or 825-watt, 19-speaker Harman Kardon audio, plus dual rear seat screens for Blu-ray/DVD disc or game plug-ins.

Branding touches are subtle but unmistakable. The liftgate features a matte black and liquid titanium chrome Trackhawk badge (stylized after the max-off-road Trailhawk). Front doors bear a low-key Supercharged inscription below Grand Cherokee. Brushed metal sill plates are embossed with Supercharged, and Trackhawk is embossed in the

Cabin. For its role as a top trim luxury highway



SPECIFICATIONS

CONSTRUCTION	.....steel uniframe
SEATING CAPACITY	.....5-passenger
ENGINE	.....6.2L supercharged V8
Deep-skirt cast iron block w cross-bolted main bearing caps, unique aluminum alloy heads w hemi combustion chambers; sequential multiport electronic returnless fuel injection; 16 pushrod overhead valves w sodium-filled exhaust, hollow stem intake / hydraulic lifters; separate dual intercoolers / high-flow variable-speed electric water pump	
COMPRESSION	.....9.5:1
EXHAUST	.....dual 2.75-inch straight-though w twin electronic exhaust valves (EEV)
HP / TORQUE	.....707 hp / 645 lb-ft
ALTERNATOR / BATT.	.....220-amp / H7 700 CCA
DRIVETRAIN	.....full-time 4WD
TRANSMISSION	.....ZF 8HP95 8-sp auto
Adaptive electronic control w driver-interactive manual control via steering wheel paddle shifters, electronically-modulated torque converter clutch w seven available drive modes including: Auto, Sport, Track, Snow, Tow, Eco, Valet	
TRANSFER CASE	.....MP 3015C full-time 4WD
Single speed, electronic proportioning front/rear: 40/60 auto, 50/50 snow, 60/40 tow, 35/65 sport, 30/70 track	
DIFFERENTIALS	.....front: conventional rear: electronic limited slip
REAR AXLE RATIO	.....3.70
SUSPENSION	.....F: SLA w alum lower control arm, alum knuckle, alum clevis, coils, Bilstein adaptive damping susp (ADS), upper/lower control arms (A arms), hollow stabilizer bar.
R: Multi-link, coils, Bilstein ADS, alum lower control arm, indep upper links (tension/camber), separate toe link, hollow stabilizer bar	
STEERING	.....elec rack & pinion, SRT tuned
RATIO / TURNS LOCK TO LOCK	.....16.5:1 / 3.2
BRAKES	.....power, single-rate, tandem diaphragm vacuum, ABS.
F: 15.75 two-piece alum hat performance rotor, directionally slotted w Brembo 6x40 six-piston fixed caliper and ABS	
R: 13.78 performance disc, directionally slotted w Brembo 4x34 four-piston fixed caliper and single-channel ABS	
PARKING BRAKE	.....drum-in-hat
WHEELS	.....20x10 forged alum w titanium II pockets, satin chrome centers.
OPT: 20x10 lightweight forged alum w low gloss black, low gloss black centers.	
TIRES	.....P295/45ZR20 Pirelli Scorpion Verde all-season performance run-flats.
OPT: P295/45ZR20 Pirelli P-Zero three-season run-flats.	
LENGTH / WHEELBASE	.....189.8 / 114.7 in
TURNING CIRCLE	.....38.0 ft
GROUND CLEARANCE	.....8.1 in
front axle.....8.97 in	
chassis (fuel tank).....9.1 in	
rear axle.....8.99 in	
APPR / BRKVR / DEPART	.....18 / 18.4 / 23.1°
DRAG COEFFICIENT	.....11.75 (Cd x cr-sec area)
WEIGHT / DISTRIB	.....5363 lb / 55/45
TOW CAPACITY	.....7200 lb
HEADROOM (F/R)	.....39.9 / 39.2 in
LEGROOM (F/R)	.....40.3 / 38.6 in
LUGGAGE CAPACITY	.....68.3 / 36.3 cu.ft
FUEL / CAPACITY	.....91 octane / 24.6 gal
MPG	.....11/17 (city/hwy)



supple premium leather of its performance front seats, while the winged Trackhawk badge appears at the flat bottom of the steering wheel.

The air induction inlets up front are echoed by a quad set of four-inch black chrome exhaust tips exiting a gloss black valance in the rear.

It's not in-your-face branding. Features, finishes, fitments and performance are what matter.

On the road. We headed out of downtown Portland, Maine, a town of just 67,000 people, and were quickly on our way along beautiful two-lane roads through farms, woods and small New England towns, headed to the track in New Hampshire, about a two-hour drive. The spacious cabin of the Trackhawk has lush Berber floormats (with Trackhawk badge) and active noise cancellation, creating a peaceful atmosphere as effectively as your favorite noise-cancelling air travel headphones.

Powertrain acoustics are tastefully applied, from the tempered whine of the supercharger to a rich exhaust note from those quad tips.

Suspension is reengineered for the Trackhawk, with extensive use of aluminum, Bilstein adaptive damping and hollow stabilizer bars, front and rear. "When you hit the track, it's an absolute animal," Jeep brand director Scott Tallon tells us. "But on-road driving dynamics are not changed one bit."

The Selec-Track system has five modes—Auto, Sport, Track, Snow, Tow—each with different front/rear torque split, starting with Auto at a 40/60 per-

cent rear bias. We have a tendency to go straight to Sport, which in the Trackhawk reduces shift times by 50 percent, tightens up steering and paddle response, and pushes torque to 65 percent rear (this sounds like a small difference from 60, but whereas 60/40 is a 50 percent advantage of rear over front, 65/35 approaches a two-fold rear advantage). It's all about response and feel, not competition. Law enforcement kept an eye on us passing through a number of locations, but no worries—take it to the track, they say, and that we were.

On the road, the supercharged Grand Cherokee Trackhawk gives you smooth, quiet confidence, quick acceleration and confident handling

On the track. An affinity for the track is spelled right out in this Jeep's name. Here, it unleashes all 707 horses' full power—all at once, if so desired. We so desired. Jeep secured track time at brand new 100-acre Club Motorsports near Tamworth, New Hampshire—a vintage and performance membership facility—two weeks before its Labor Day Weekend opening. We ran as often as we wanted, in sets of three laps (warm up, run full out, cool down), on their 2.5-mile, 15-turn wooded road course with 250-foot elevation changes and great views across the White Mountains.

You don't feel the Jeep's relative bulk or even its 5363 pounds (213 pounds more than the SRT, 30 pounds less than an Overland with 3-liter diesel). Your mind is on the apexes and the cones

(cones were especially useful here, as your next move is often hidden over the next rise, all at track speed). For all practical purposes, you could just as easily be driving the Charger SRT Hellcat.

The Jeep's top speed is 180 mph. It's unwise to look at your speedo on course at speed, but Performance Pages showed our overall lap averages typically in the 125 mph range (enough to drive the whole 2.5-mile track 50 times in an hour).

Track mode pushes power even moreso to the rear wheels, now 30/70. Shift times are reduced by 68 percent, while stability control, steering and the all-wheel-drive system are all maximized for firm, quick response on smooth, dry surfaces.

To experience the quickest acceleration of any SUV ever—3.5 seconds, zero to 60—and quarter-mile times of 11.6 seconds, we then staged at the front straight to try the Trackhawk's Launch Control, exactly as we have done with the Challenger and Charger Hellcats at tracks in Arizona, Michigan, Oregon, Texas and West Virginia. With left foot fully on the brake, you spool up the engine with your right, as its energy pulses increasingly beneath. Let off the brake instantly, and you are near-instantly at the far end of the run. Time to hit the brakes—the largest ever on a Jeep, which stop the vehicle from 60 mph in 114 feet, within respectable range of supercars that weigh only a third as much. This run has us going much faster than that, and the cones come up quickly. Our drive line itself is straight as an arrow, helped by a full



panopoly of control systems. Instantaneous release of your brake foot is key to the best time, just one of many good reasons we ran this repeatedly. It's also fun to watch, as this winds up the supercharger for its best possible soundtrack.

Off-road? The Grand Cherokee Trackhawk is all-wheel-drive, yes, but then so is an Audi R8. Off-roading is not its purpose; there are plenty of other Jeeps for that. The front and rear fascias do not provide the approach and departure angles of a Trailhawk, and you're running wide, low profile Pirelli performance tires. It does have 8.1 inches of ground clearance, meeting or beating many other utilities, though an inch less than non-SRT Grand Cherokees (and another three inches or so less than those with air suspension)—so we suppose you could take it fishing, if it's your only Jeep.

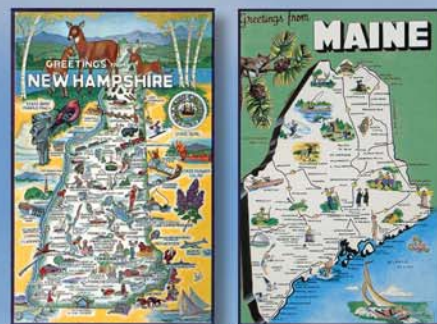
At a Grand Cherokee full-line event a few years ago, we drove the SRT on road and track one day, the Trailhawk and other trims on road and extreme off-road courses completely separately, in a different place, on a different day. This year's event was Trackhawk-only, with off-roading not even mentioned, which really answers the question.

Towing and snow. Grand Cherokee Trackhawk does have pedigrees for towing and for winter driving, with drive modes for each. Tow mode switches the torque split from Auto's 40/60 to 60/40 front/rear and applies suspension dynamics to counter pitch and yaw for smooth towing.

Snow mode gives you a 50/50 split and reduces horsepower, to give you an edge in the slick stuff.

Pricing. The Trackhawk's premium positioning is clear with the price tag—\$85,900—perhaps startling at first for a Jeep, but not when you consider its comprehensive mix of luxury and unparalleled capability, as well as the price of luxury competitors (and parts and service cost differences). Most enthusiasts' first reaction to the birth of the Trackhawk is, yes! Their second is, an \$86,000 Jeep? And their third, let me check my bank balance!

Jeep chief Scott Tallon says at cost per horsepower, its value is unmatched. Pick a few and do the math; it's interesting in itself and also reveals how distinctive this vehicle is. The Jeep and SRT teams have really done their homework on the Grand Cherokee Trackhawk—and, as always, it's easy to tell they have had a ball doing so. ■



PRICING

BASE PRICE	\$85,900
DESTINATION CHARGE	1,095

OPTIONS AND PACKAGES

SIGNATURE LEATHER WRAPPED INTERIOR PACKAGE: Laguna leather performance seats, Laguna leather reserve door trim, leather-wrapped lower panels (all black or black/dark ruby red).....	*4995
HIGH PERFORMANCE AUDIO: 825-watt 19-speaker Harman Kardon high-performance audio ...	*1995
<i>*NOTE: Signature Leather Wrapped Interior Package and High Performance Audio package are only available bundled for a total of:.....</i>	
<i>*6990</i>	
TRAILER TOW GROUP IV: Class IV receiver hitch, 7- and 4-pin wiring harness, 20x6.5 aluminum compact spare wheel & tire, heavy duty engine cooling, delete rear tow hook.....	995
COMPACT SPARE TIRE: 20x6.5 aluminum compact spare wheel & tire (incl in Tow Group pkg)....	395
DUAL PANE PANORAMIC SUNROOF	2095
IVORY TRI-COAT PAINT	595
<i>(NOTE: Nine colors are available. Ivory Tri-Coat is the only upcharge color; the other eight are at no additional cost: Billet Silver, Granite Crystal, Diamond Black, Bright White, Velvet Red, Rhino (exclusive), Redline 2 (exclusive), True Blue.</i>	
20X10 BLACK SATIN WHEELS	995
THREE-SEASON TIRES: 295/45ZR20 Pirelli P Zero 3-season tires w increased speed rating.....	895
ENGINE BLOCK HEATER	95

TOTAL all above options + dest.....**\$99,755**

ADDITIONAL OPTIONS NOT YET PRICED:

BLU-RAY ENTERTAINMENT: two screens on front seatbacks for rear passengers, capable of playing both DVD and Blu-ray Disc w separate ports to input video games or other devices.....	\$TBD
DARK RUBY RED SEATBELTS	\$TBD

