

MAGIC POWERTRAIN BY JOE SAGE

Stellantis, current iteration of the automaker long known as Chrysler, has long held a reputation for talented engineers and advanced powertrains. As many others dive headfirst into EV territory, they have avoided being bleeding edge adopters, holding on to more traditional builds a bit into overtime, to massive acclaim from their customers (and climbing to the top of reliability ratings by continuing to tweak the tried and true).

But plenty of evolution has been methodically underway in the background and is now coming to light in a big way. While EVs are being developed, PHEV (plug-in hybrid) presence is rising rapidly, as these powertrains— seen by many all along as a

best-of-all-possible-tech solution—are ever more widely recognized and understood.

Dodge kept a solid V8 game going much longer than most, though this is the last year of Challenger and Charger as you've known them. Their next evolution will combine their muscle stature with the latest tech, already demonstrated by a PHEV in the new compact Hornet lineup, but applied to its R/T performance trim, proving electrified benefits without enthusiast compromise. Chrysler Pacifica has had a PHEV variant for years, which they decided to just call a hybrid (better understood by dealers and customers alike, with plugging in just something you could do, but didn't have to). Ram Trucks

added eTorque mild hybrids to the lineup in 2019. And Jeep's 4xe (four-by-e) PHEV powertrain arrived with Renegade 4xe and Compass 4xe in 2019 as 2020 models, then Grand Cherokee 4xe for 2022.

The Jeep 4xe powertrain has gone quickly from novelty to mainstream, with Wrangler 4xe first revealed in summer 2020 and now available on six of eight trims—the High Altitude 4xe-only, and as an option on all others except the base unit or the top Rubicon 392 V8. All are Wrangler Four-Doors.

The top attributes of Jeep and 4xe are fully combined in our Wrangler here—the Rubicon 4xe, its smooth, clean, powerful, economical PHEV powertrain underpinning famed off-road abilities.

With a 400-volt, 96-cell battery pack below the rear seat (preserving off-road protection and inte-

rior space) plus a 2.0-liter gasoline turbo, this 375-hp Wrangler provides top torque at low speed for quiet running through the canyons), plus up to 21 miles in full EV mode, as you expect from a PHEV, while all Trail Rated, with the solid axles, full-time transfer case, extreme suspension and 30 inches of fording ability you expect from a Rubicon.

The combination's 470 lb-ft of torque matches the Rubicon 392 V8, with electrified benefits—an extra kick right from the start of the power curve, along with a pure electric mode that allows a gas pump-free work week in town for many users.

Off-road capability not only equals the familiar Rubicon, but in some cases increases it, as the 4xe powertrain provides traction to the rear axle not via a prop shaft, rather through a dedicated electric motor, allowing the two axles to control torque independently, which can be more effective than the V8's mechanical system, also providing instant electric boost to the rear wheels when needed.

Our sample adds the Rubicon X Preferred Pack-

age, an \$8500 option that turns a Rubicon 4xe into a semi-separate trim level, the Rubicon X 4xe.

We had driven the Jeep 4xe powertrain at comparo events, typically about 20 minutes each. The Grand Cherokee 4xe won Family Utility and Electrified Utility categories, was runnerup for Extreme Capability Vehicle and won the top Outdoor Activity of the Year Award at NWAPA Mudfest in the Pacific Northwest. We had a very similar build to this Wrangler last spring at Mudfest—that one a Rubicon 4xe, even the same color, but with a 20th Anniversary package rather than this one's X Package. That one won both as Two-Row Family SUV—the largest category—and the top off-road trophy for Extreme Capability Vehicle—the smallest but most focused performance subcategory.

The breadth of those wins—from family SUV to toughest on the trails—is very much in sync with what we have now found during a full week with the Rubicon X 4xe here at home.

While we took our hero pix of the Rubicon 4xe

(cont'd)

2024 JEEP® WRANGLER LINEUP

	2-DOOR	4-DOOR	4xe PHEV
Sport	\$31,895	\$35,895	--
Sport S	35,395	39,395	49,995
Willys	39,395	43,395	54,735
Sahara	--	47,825	56,845
High Altitude	--	--	66,995
Rubicon	45,395	49,395	60,585
Rubicon X	54,895	58,895	69,085
Rubicon 392	--	87,595	--



The new Wrangler looks fantastic in any color, and it comes in more than ever, with several added in 2023 and more for 2024. Our prearrival pix were in High Velocity (bold yellow) and we thought that looked great, wouldn't want it in any other color, perfect. Then ours arrived in this stunning almost battleship-navy-grey simply known as Earl, and same thing—you wouldn't want it in any other color. You will definitely want to see the full range of choices. Good luck deciding!

SPECIFICATIONS

ASSEMBLY	.....Toledo North Assembly, Ohio
ENGINE	.....Termoli, Italy and Trenton South Engine Plant, Trenton, Michigan
LAYOUT/CONSTRUCTION	.....ladder-type frame, open steel and aluminum body
ENGINE	.....2.0L turbo-4 chain-driven DOHC, 16v dir inj, PHEV, throttled/cooled EGR (exhaust gas recirc), alum/alum
COMPRESSION RATIO	.....10.0:1
HP/TORQUE	.....270 hp / 295 lb-ft
PLUG-IN HYBRID SYSTEM:	
eTORQUE BELT-START GENERATOR/MOTOR	
PEAK PWR / START TORQUE	.....44 hp / 39 lb-ft
INTEGRATED TRANSMISSION TRACTION MOTOR	
PEAK POWER/TORQUE	.....134 hp / 181 lb-ft
BATTERY	.....lithium ion Li-NMC 260-400V DC
MAXIMUM CHARGE RATE	.....7.2 kW
TOTAL PEAK HP/TORQUE	.....375 hp / 470 lb-ft
TRANSMISSION	.....8-spd auto 8P75PH PHEV
DRIVETRAIN	.....4x4
TRANSFER CASE	.....MP30220R Rock-Trac full-time, 2H/4auto/4H/4L, 4.0:1 ratio
AXLES	.....3rd gen Dana, front Tru-Lok electronic locking diff; R: 3rd gen Dana 44 HD full float, Tru-Lok electronic diff
AXLE RATIO	.....4.10
SUSPENSION	.....F: solid axle, link coil, leading arms, track bar, coil springs, high-pressure gas-charged monotube shocks w MTV tech and hydraulic rebound stop, stblzr bar; R: solid axle, link coil, trailing arms, track bar, coil springs, high-pressure gas-charged monotube shocks w hydraulic rebound stop, stblzr bar
STEERING	.....electro-hydraulic power
BRAKES	.....hydro-electric ABS w fully blended regeneration capacity; F: 12.9x1.1 vented, twin-piston floating cal; R: 14x0.86 vented, single floating caliper
WHEELS	.....17x7.5 machined w black pockets
TIRES	.....LT285/70R17C BF Goodrich T/A K02 all-terrain
TURNING CIRCLE	.....38.9 ft
GROUND CLEARANCE	.....10.8 in
APPR/DEP/BRKVR	.....43.8 / 22.5 / 35.6°
WATER FORDING	.....31.5 in
LENGTH / WHEELBASE	.....188.4 / 118.4 in
HEADROOM (F/R)	.....40.8 / 40.3 in
LEGROOM (F/R)	.....40.8 / 38.2 in
CARGO CAPACITY	.....27.7 / 67.4 cu.ft
CURB WEIGHT	.....5226 lb
TOW CAPACITY	.....3500 lb
RANGE	.....all-electric 21 miles
FUEL / CAPACITY	.....87 min, 91+ rec'd / 17.2 gal
MPG	.....49 MPGe / 20 (comb)
BASE PRICE	.....\$60,585
PAINT: Earl clear-coat exterior	.....595
RUBICON X PREFERRED PKG (29V):	
Nappa leather seats, 12-way power front seats, heated front seats, heated steering wheel, acoustic front seat-area carpet, acoustic laminated front door glass, Alpine premium audio, HD radio, active noise-control, connected travel & traffic services, Uconnect 5 nav w 12.3-in touchscreen, body-color Rubicon highline flare, remote start, auto high-beam, integrated off-road camera, rear defrost, rear wiper/washer, steel bumpers front & rear, blind-spot & cross-path detect, ParkSense rear park	.....8500
SKY ONE-TOUCH POWER TOP: removable rear quarter windows w storage bag	.....3295
FLOOR MATS: Mopar all-weather	.....170
WARN WINCH	.....1995
DESTINATION CHARGE	.....1795
TOTAL	.....\$76,935

in the wild (itself not surprising), we drove the heck out of it in town, too, as anyone may well do.

We had also considered taking it for a longer distance road/off-road drive, though realizing that while 49 MPGe sounds enticing (benefitting from 21 miles of EV range), its 20 mpg combined rating would prove more realistic over hundred of miles.

We still would have done it, given more time. The Wrangler 4xe's powertrain is pure magic. You can somewhat feel that it's a smaller turbo engine without the deeper growl of a V8 (and while it matches the V8 Rubicon's torque, horsepower is a little lower, at 375), but you can feel its strength.

In town, this Wrangler cruises very nicely. The 4xe powertrain is powerful, and it is quick. It's almost hard to believe you're also atop a big beefy-tired Wrangler Rubicon. You can run it up a free-way ramp, merge into aggressive high-speed traffic, choose your lanes, hold or change your lanes, and react to the surprises your fellow travelers always inflict, along with the best of the best.

On the freeway, you can sense the strength and capability of its big tires riding atop its wondrous suspension, but though geared toward maximum off-road, that's not how it feels; it's more just an awareness that it's there—the best of all worlds.

At one point, a good 20 or 30 cars ahead of us suddenly lit up their brake lights—a great test of this Jeep's brakes, and they did great. While most

regenerative brake systems inevitably feel a little different, this one's "fully blended" hydro-electric regenerative system was superlative, with emphasis on its primary job and regen just a bonus.

For parking, we found the rear camera provided an unusually clear and accurate view.

Don't expect the big-wheeled Rubicon to corner quite like a performance car on surface streets, although you'll easily push beyond what you'd normally do in a vehicle like this. It has no surprises or disappointments, at a minimum feeling and performing well ahead of what you might expect.

Despite its skills in civilization, you know you have a Wrangler Rubicon—its height, posture, the lighter-than-average heft of its removable doors, its window controls in the center console, all that unmistakable Wrangler look and feel.

We did have a very full afternoon at a major off-highway vehicle park, pretty much all to ourselves. We uncharacteristically started out in 2HI, to see what we'd learn, and it did just fine. We figure in rear-wheel drive it benefits from less weight up front than a V8, so chalk one up for 4xe. We did the rest of our session in 4HI (as opposed to 4Auto, more of a slick-surface variable thing). Our moderately extreme terrain never called for 4LO.

While other Wrangler 4xe builds have a Selec-Trac transfer case with 2.72:1 low range, Rubicon 4xe has a Rock-Trac unit with 4.0:1 low range,

along with 4:10 axle ratios (vs 3.3 in others), Tru-Lok electronic locking differentials, and gen-three Dana axles (including 44 HD Full Float in the rear).

The Jeep team is gifted. Here, they've also been granted a gift, the world famous Wrangler to work with, and as always have done its legacy proud.

No question, the Jeep 4xe powertrain has gone from novelty to mainstream in record time. And it now proves itself in a great build of the Rubicon.

You can still get a gasoline-only V8 Wrangler Rubicon 392—but at about \$30 grand more than a V6 Rubicon X or about \$20 grand more than the lower-horsepower but equal-torque Rubicon 4xe.

Whereas a vehicle like this used to be a matter of compromise to the hard-core, it no longer is. Plus there are more and more people considering their first Wrangler, even a maximum-duty one, only having known they want one. This rig has to be useful in the most challenging off-road situations, and as a Rubicon of course it is. But realistically it has to be useful in normal conditions as a daily driver. For the sake of buyers, fellow traffic, and the brand itself (which has every reason to try to please them all), it has transformed superbly here, truly proving to be a does-it-all machine.

We had posed a question on social media before our Wrangler 4xe's arrival: "Is there anything this *CAN'T* do? Let's find out!" And the answer is: nope, not really! This is a stunning build. ■

