

Stepping stone

BY JOE SAGE

It's still big news when a full hybrid powertrain makes its way into the Ford F-150, even as widespread as hybrids have become. Of the various engines available in an F-150 (see lower sidebar), the new 3.5L PowerBoost full hybrid V6 beats all for output, at 430 hp and 570 lb-ft of torque. Its tow capacity is a little less than EcoBoost or V8, but tops the diesel.

No two specific big pickups are ever quite the same, with variables large and small, though this particular one has much in common, as the computer chip shortage ran this model year into a bit of overtime, with another 2021 we had a year ago. The first had the same engine in a high-end ranch-ready King Ranch with FX4 off-road package, while this is a more elegant top-of-the-line Limited—and a hybrid. The first had enough options and packages to end up in the upper \$70s, same as this.

As with any F-150, the hybrid has a knockout interior with systems and features generally well developed. It's the powertrain that differentiates it the most. Fuel mileage was TBD in the prior truck; it now comes in at an unusual but easy-to-remember 24/24/24 mpg city/highway/combined.

There's a riddle in those fuel mileage numbers. With most traditional vehicles, city mileage is lowest, while in most hybrids, city is higher than highway (largely due to energy gained in regenerative braking). But on this one, they're all the same.

We first drove the truck on our regular errands—surface streets and parking lots, freeways and on-ramps (where the hybrid's power and torque

really shine). Our readings ranged from just 10.1 to a brief high of 12.8 mpg. Hmm. We could get that in a Super Duty with the biggest V8. By 50 miles, we were up to 13.6 mpg, better, but we could do 50 miles in an EV while hardly tapping its full range. Our hybrid F-150, on the other hand, had over 400 miles of range left and can be refueled much more quickly than an EV.

Bearing in mind that we drive normally, as you probably do, no painful hypermiling. Not achieving anything like 24 mpg in town, we headed for I-17, at that point reading in the 14s. Zeroing out gave an instant reading of 21.0, and future resets would be similar. This quickly dropped to 17.0, then by Anthem, before serious climbing, was up to 18.9

mpg. Not bad, though we still hadn't seen the 20s and certainly not 24 as rated.

The two-lane climb in Black Canyon brings bottlenecks, slowing and passing, normally inefficient but in this case with benefits likely via regenerative braking. At the top, though, we were back down to 17.0. Idling at the top for 20-30 minutes while taking photos, we dipped to 16.6, not bad.

Heading south, descending then leveling out at New River, we hit 17.6, concluding that any negligible difference between climbing and descending was perhaps attributable to regenerative braking as much as to engine load. Once back on the 101, we finally hit our best—20.4 mpg—evidence that Arizona's aggressive but cooperative freeway traffic is indeed quite efficient.

The results seem counterintuitive, in the face of conventional thinking that hybrids do better in town and despite this truck having the same rating for all. But this offers promise in any usage.

After more local driving, despite red lights, surface street turns and other regenerative opportunities, we ended with

a 15.5 mpg final average.

One behavior we never adjusted to was a feeling at low speed, starting out, or in tight parking lot maneuvers, where you want to ease forward or back. Presumably due to the regenerative brake system, we felt stuck in wet cement, till applying enough pedal and breaking free more abruptly.

We expected the basic takeaway to be that this drives like an f-150, but one that gets really good fuel mileage. Neither, though, seemed quite completely the case. Yet there will be something irresistible about this formula for many—an evolutionary point on the path from EcoBoost to F-150 Lightning full EV. It can also be seen as a destination in its own right—a rock solid proven truck, now specifically engineered to deliver more power, range and tow capacity.

There are many ways to compare F-150 powertrains—towing, price, fuel mileage, even that satisfying V8 growl in some. A regular 3.5L EcoBoost runs \$600, a PowerBoost hybrid engine \$2500. You may get that back quickly at today's fuel prices.

All those statistical or philosophical riddles aside, Ford has hit the nail firmly on the head with this truck—to the point you may be thinking, wait, what, they didn't always make one of these? ■



SPECIFICATIONS

ASSEMBLY	Dearborn, Michigan
ENGINE	3.5L PowerBoost™ twin-turbo/intercooled 60° V6 DOHC, alum/alum, port fuel inj w direct inject
COMPRESSION RATIO	10.5:1
HP/TORQUE	430 hp / 570 lb-ft
DRIVETRAIN	4x4
TRANSMISSION	10-spd modular hybrid electronically controlled hydraulic auto
REAR AXLE	3.73
SUSPENSION	F: indep dbl wishbone w coil-over shocks, stamped lower control arm; HD gas shocks R: leaf spring / solid axle, HD gas shocks Planar Susp System (sidebar, next page)
STEERING	electronic pwr assist
BRAKES	electronically controlled boost; F: vented disc, Nitro Tough Iron, 350 x 34 mm, 2x 51mm sliding caliper R: vented disc, Nitro Tough Iron, 336 x 20 mm, 1x 54mm sliding eIPB
WHEELS	22-in polished aluminum
TIRES	275/50R22 BSW all-season
TRACK (F/R)	67.9 / 68.3 in
LENGTH / WHEELBASE	231.7 / 145.4 in
BED LENGTH	nominal 5.5 ft inside length at floor 67.1 in
HEIGHT / WIDTH	77.2 / excl mirrors 79.9 in
OVERHANG (F/R)	37.6 / 48.6 in
APPR / DEP / BRKOVER	24.3 / 25.3 / 20.0°
GROUND CLEARANCE	9.4 in
TURNING CIRCLE	47.8 ft
HEADROOM (F/R)	40.8 / 40.4 in
LEGROOM (F/R)	43.9 / 43.6 in
WEIGHT	5517 lb
PAYLOAD / GVWR	1830 / 7350 lb
TOW CAPACITY / GCWR	12,400 / 18,400 lb
FUEL / CAPACITY	reg 87 oct / 30.6 gal
MPG	24/24/24 (city/hwy/comb)
BASE PRICE	\$74,250
SMOKED QUARTZ TINTED CC METALLIC	510
3.5L POWERBOOST FULL HYBRID: incl hybrid elec	
10-spd auto trans, 3.73 electronic lock rear axle, 7350# GVWR pkg	1900
FLOOR LINER: tray style w carpet mat	200
INTERIOR WORK SURFACE	165
MAX RECLINE FRONT SEATS	340
TOUGHBED SPRAY-IN BEDLINER	595
DESTINATION CHARGE	1695
TOTAL	\$79,655

(Note: Monroney price varies from prices below.)

FORD F-150 (2021)*	4x2	4x4
XL	\$29,290	+\$4645
XLT	35,400	+1500
Lariat	45,045	+5570
Tremor	na	\$49,505
King Ranch	56,015	+3425
Platinum	58,795	+3425
Raptor	na	64,145
Limited ▼	73,105	+3425

2022 also adds the F-150 Lightning Full EV

*Base configuration for each. Major variables vary by trim; not all are available with all trims; and not all combinations are available, e.g. 4x4 may require diff cab/wheelbase or engine:

- POWERTRAIN: 4x2 or 4x4
- CAB: Regular, SuperCab, SuperCrew
- WHEELBASE: 122.8, 141.5, 145.4, 157.2, 164.1 in
- BED LENGTH: 5.5, 6.5, 8 ft
- ENGINE: 3.3L V6, 5.0L V8, 2.7L V6 EcoBoost, High Output 3.5L V6 EcoBoost, 3.5L V6 PowerBoost Full Hybrid