

# Road Beat: An improved Lexus RX450h FWD



The Lexus RX450h FWD has plenty of new features to brag about. Photos/Larry Weitzman

**By Larry Weitzman**

Sometimes all new vehicles are rehashed old designs. But not so with the new Lexus RX; it is all new.

It is the best-selling Lexus, so messing with success can be dangerous, but not in this case. While the new design is an evolutionary step forward, having a shape relationship to the prior generation, that too is much improved with a new found edgy appearance defined by its extreme character line, new muscular hood, triple headlights, new window line with an extended rear quarter window treatment and so much meaningful

detail. The rakish, beautifully proportioned profile looks sleeker, longer and lower. About the only negative is the signature character grille which attempts to dominate the otherwise terrific front end.

Growth is another aspect of the new RX and it is in almost every direction as it is 5 inches longer at 193 inches, on a 2-inch longer wheelbase at 110 inches, width is up by half an inch at 75 inches and it has grown taller by an inch or so at 68 inches. RX even has an inch more ground clearance at 8 inches. Weight, however, has been held in check only growing by about 100 pounds to 4,608 for FWD models and 4,740 for AWD issues. Only the fuel tank remains the same 17.2 gallons.

Under the hood is a new version of the Atkinson Cycle, 3.5L DOHC 24 valve V-6 which makes a bit more power at 259 hp at 6,000 rpm and 247 pounds of twist at 4,800 rpm, up by numerical values of 14 and 13, respectively, at the same rpm. It is probably due in large part to the increased compression ratio of 13:1. Adding to that output is an electric hybrid system that can add as much as 50 hp, bring total output to 309 hp. Literature on the RX may say 308 hp, but 259 hp plus 37 kW equals 308.6 hp. Anyway, power in my tester is sent to the front wheels through an extremely smooth CVT. In AWD models, an electric motor power the rear wheels. It is a pretty simple system.



### **Specifications**

Price \$52,235 to about

\$62,000

**Engine-conventional**

3.5L DOHC 24 valve V-6 259

hp @ 6,000 rpm

247 ft.-lb. of torque @

4,800 rpm

Electric motor front axle

155 hp

Electric motor rear axle 67

hp (AWD only)

Sealed nickel metal hydride

(Ni-MH) 50 hp

**Transmission**

CVT

**Configuration**

Transverse mounted front

engine/front wheel

drive/all-wheel drive (rear

axle is electrically

powered)

**Dimensions**

Wheelbase 109.8 inches

Length 192.5 inches

Height 67.7 inches

Width 74.6 inches

Weight (FWD) 4,608

Track (f/r) 64.4/64.0 inches

Ground clearance 8.2 inches

GVWR 5,864 pounds

Tow capacity 3,500 pounds

Fuel capacity 17.2 gallons

Cargo volume (second row

up/second row folded)

40.0/80.3 cubic feet

Seat belts (passenger

capacity) 5

Wheels (std/opt)

18X7.5/20X7.5 inch alloys  
Tires (std/opt)  
235/65X18/235/55X20  
Turning circle 38.0 feet  
Steering lock to lock 2.70  
turns  
Coefficient of drag 0.34  
**Performance** RX450h FWD  
0-60 mph 6.48 seconds  
50-70 mph 3.42 seconds  
50-70 mph uphill 4.50  
seconds  
Top Speed Electronically  
limited to 112 mph  
Fuel economy EPA rated at  
31/30/30  
city/highway/combined mpg  
(AWD). Expect 30-31 mpg in  
rural country driving with  
some stop and go and 33 plus  
mpg on the highway at legal  
speeds.

Smoothness is the key word for this system. The throttle is very predictable and linear. Combining the two systems is imperceptible and Toyota/Lexus has really made hybrids undetectable in the way they perform as everything in the system is seamlessly integrated. But (don't you love it when the "but" appears), the auto stop and start of the system can still be felt from a dead stop when the brake is released (brake release starts the engine after stopping). Now, however, many cars (hybrids and conventional, alike) with auto stop and start "suffer" from this. But in the RX, most drivers will be unaware of it.

Hybrids are about improved fuel economy and performance and this rig does well at both. This new RX flat out got it done,

with a 0-60 mph elapsed time averaging 6.48 seconds, about a quarter of a second improvement over the prior generation. Passing times also reflected a significant improvement with a 50-70 mph time of 3.42 seconds and an uphill run of just 4.50 seconds. The prior generation posted times of 6.75, 3.72 and 5.75 seconds respectively.

Fuel economy is also improved, in this case by about 10 percent. EPA numbers are 31/30/30 mpg city/highway/combined. But in 350 miles of varied driving with about 15 percent spent on the freeway, the RX 31.7 mpg. On a level highway two way run at 70 mph, 33.3 mpg was the average. The new 450h averaged 32.7 mpg in a roundtrip from Placerville to South Lake Tahoe. Prior generation numbers were about 28 mpg overall and 30.3 mpg in its 70-mph highway run. Think of it, driving a luxo, 4,608-pound SUV that accelerates from 0-60 mph in less than six and a half seconds and yields a solid 30 plus mpg. Not too shabby.

Handling can be best described as secure. My RX tester came with the Luxury Package (\$3,125) which means upgraded semi-aniline leather seats, but it also means 20X7.5 inch alloys shod with 235/55 series tires (standard are 18X7.5 inch alloys with taller profile 235/65 series rubber) and that means crisper grip and more tire feel. Suspension is MacPherson struts up front and a double wishbone system in the rear and steering while quick at 2.7 turns lock to lock is the only negative in its numbness which means you will have to guide the big RX to get the most out of its sophisticated suspenders. But it will do the twisties at speed with confidence. No problem here.

Ride quality is enhanced by the RX body and construction which feels like it was carved out of a steel ingot. It is just that solid. Just open and close a door, feels more like closing a bulkhead door on a battleship. The ride is solid, it absorbs everything the road can dish out, big or small, smoothing out every road and there is no float. Wind and road noise are non-

existent. There is no tach so engine rpm at speed while unknown is probably at or below 2,000 rpm. But here is the deal, this RX will operate on pure electric below about 45 mph and then things get really smooth and quiet, amazingly so. But any throttle pressure brings on the gas engine. It's a small, Nickel Metal Hydride battery.

I don't know the engineering requirements or space available, but if the battery was just a bit bigger (a cubic foot or so) allowing a more continuous power draw and a higher pure electric top speed of 55-60 mph and the ability to do this for perhaps three or four miles would be wonderful. I am not talking plug in hybrid, just a hybrid with a bit more battery. Doubling the current battery might only add a hundred pounds. Another question is if there is enough energy recapture to make it work. Lexus, give this idea some thought.

Braking is by huge (13 inch), ventilated four wheel discs with all the acronyms and they are firm and strong. No less than 10 airbags protect the driver and passengers along with electronic aids like an enhanced vehicle stability control system. But nothing replaces good judgement. Headlights are amazing.

Getting back to the luxury package makes for extremely comfortable seating. The quality of the appointments is outstanding, everything you touch exudes a dense softness. Instead of a tach, there is a meter showing the hybrid system operation. Centered between the speedo and system gauge is an info/trip computer. While the speedo is large, my tester had a handy heads-up display (\$600). Most everything is standard including moonroof, full power (10-way front seats) and even a drivers' seat, mirror and steering wheel memory. Rear seating is copious for three and cargo space is large at 80 cubic feet.

Pricing for the RX450h FWD is not cheap at a base of \$52,235 plus \$940 for the train and truck from Ontario, Canada. My

tester had about \$8,000 in options including the Luxury Package bringing to total with destination to \$61,420. The least expensive of the options is worth noting as it was \$430 for the huge 12 inch NAV system stuck on top of the center stack. After understanding the all-purpose nature of the RX, it is no wonder it is the top selling Lexus.

*Larry Weitzman has been into cars since he was 5 years old. At 8 he could recite from memory the hp of every car made in the U.S. He has put in thousands of laps on racetracks all over the Western United States.*