

Road beat: Lexus sports car purrs



Lexus understands how to make a sports car for everyday driving. Photos/Larry Weitzman

By Larry Weitzman

Lexus has built sporty cars in the past such as the SC300 and SC400 and the second generation SC430. Now Lexus has a serious sports coupe in the guise of the RC350 and the RC-F. My tester is the super high performance F Sport model that comes standard with a rockin', honkin' 5.0L V-8 that cranks out 467 hp at a stratospheric 7,100 rpm. The RC350 uses the IS and GS 3.5L V-6 powerplant with a nothing to sneeze at 306 hp.

Unveiled at the 2013 Tokyo Auto Show, the new RC is based on the excellent IS platform, which happens to be my favorite Lexus. RC-F also borrows the front subframe from the GS platform as well. It is a sleek fastback two door hardtop design (meaning frameless windows) that has small intricate details like the three rectangular headlights on each side or

the front brake cooling ducts along with its massive six pot Brembo sourced brakes. It draws a crowd wherever it goes, even from a distance. People know it's a special car. Coefficient of drag is a moderate 0.33.



Specifications

Price \$43,715-\$75,000

Engine -F Sport

5.0L 32 valve DOHC V-8 467
hp @ 7,100 rpm

389 lb-ft of torque @
4,800-5,600 rpm

Transmission

Eight speed direct shift
automatic

Configuration

Longitudinal front
engine/RWD

Dimensions

Wheelbase 107.5 inches

Length 185.2 inches

Width 72.6 inches

Height 54.7 inches

Track (f/r) 61.2/61.4 inches

Ground clearance 5.1 inches

Fuel capacity 17.4 gallons

Trunk capacity 10.1 cubic
feet

Weight 3,958 pounds
Weight distribution 55/45
Turning circle 35.4feet
Steering lock to lock 2.84
turns
Wheels (f/r) 9X19/10X19
inches
Tires (f/r)
255/35X19/275/30X19
Co-efficient of drag 0.33

Performance

0-60 mph 4.23 seconds
50-70 mph 1.94 seconds
50-70 mph uphill 2.34
seconds
Top speed Electronically
limited at 170 mph
Fuel economy EPA rated at
16/26/19 mpg
city/highway/combined Expect
21-22 mpg rural country
driving, expect 28-29 mpg at
legal speeds on a level
highway.

It rides on a shortened IS wheelbase of 107.5 inches while the body stretches out to 185 inches. Width is a tidy 72.6 inches as it stands almost 55 inches high. It's size could be called large compact.

What makes the RC-F powerplant is the ability to go from Otto cycle to Atkinson cycle. It's like having your cake and eating it too. Atkinson cycle engines use an extremely high compression ratio in the F's case 12.3:1. Most hybrids use Atkinson cycle engines with super high compression as by holding the intake valve open beyond bottom dead center of the compression stroke, it makes the ratio between the compression

stroke and the expansion (power) stroke even greater improving overall engine efficiency. Lexus can do this because of its super trick use of variable valve timing and lift system.

When the engine is cruising down the highway under light loads, it improves fuel economy. If you demand more from the engine room it instantly switches back to a more powerful Otto cycle mode.

In case you are interested this 5.0L monster motor also makes 389 pounds of twist anywhere from 4,800 to 5,600 rpm. How's that for a flat torque curve. Because the curve is flat, it is a good demonstration of how torque with rpm means nearly everything in performance, not just torque. It also demonstrates the extreme efficiency of the F's 5.0L V-8. At 4,800 rpm the V-8 produces 356 hp, but because the V-8 can maintain the same peak volumetric cylinder efficiency at 5,600 rpm it makes 415 hp. Identical torque but an additional 59 hp. Even at peak 467 hp rpm of 7,100, the V-8 is still making 345 pounds of torque. Good stuff.

With the engine supplying power via an eight-speed direct shift tranny which acts like a dual clutch in quickness of shifts, the F will arrive at 60 mph from a standing start in a world class 4.23 seconds. Passing performance is also world class with a 50-70 mph run taking less than two seconds at 1.94 seconds and the same run up a 6 percent grade only slowing that time by 0.4 seconds to 2.34 seconds. The F downright rocks.

Deserving special mention is the exhaust system. Normally all you hear is a muted burble. But get on the gas past about 4,000 rpm and an exhaust bypass opens and to its 7,200 rpm redline it sounds like a NASCAR, not quite as loud but with a better tone. Engineers must have worked hundreds of hours to produce that perfect V-8 sound. That alone is almost worth the price of admission. When showing the car to a high ranking politician who is also a gear head, he couldn't get

enough of that boisterous V-8. Perhaps the best he has heard.

Yet it is not a gas-guzzler. EPA says expect 16/25/19 mpg city/highway/combined, but my tester did much better. Overall it averaged about 22 mpg and in a round trip to South Lake Tahoe the F averaged 24.3 mpg with the upslope trip averaged 21.1 mpg. Even better is a two way highway run averaging 28.8 mpg at 70 mph with the engine spinning just 1,750 rpm. That is remarkable fuel economy. Perhaps the V-6 version might return a couple more mpg.

As sports cars go, the F is a bit heavy at 3,958 pounds, a couple of hundred more than the V-6 and 400 pounds more than the IS350. Weight distribution is also not perfect at 55/45 percent front to rear (with acceleration weight transfer 52/48 is ideal). But not to worry., the F gets the best of suspensions, double wishbone up front and a trick multilink system in the rear with gas filled shocks and coils at all four corners plus large stab bars at both ends. Guiding the F is an adjustable speed sensitive electric power rack that is a quick 2.84 turns lock to lock and a curb to curb turning circle of 35 feet. And then there are the huge 19 inch alloy wheels (9 inches wide up front and 10 inches wide in the rear) shod with super low profile 255/35 in front and 275/35 series in the rear with either specially designed Bridgestone Potenzas or Michelin Pilot Sports, my two favorite sport tires.



There is more room in the

back seat than expected.

At seven- to eight-tenths driving it simple straightens out the twistiest roads. Body roll is almost non-existent. It simply goes where pointed. Understeer even considering the big engine up front is minimal at that aggressive pace. Turn in is extremely quick. It is confidence inspiring. It never got even close to complaining. And with that kind of prodigious power using the throttle to rotate the F was sublime.

Obviously the ride is firm, tighter than an IS. But it feels like a 12 inch thick bank vault wrapped in a half a foot of super dense foam. It was solid but never harsh. It was superbly controlled but never jarring. It was quite supple and compliant. This is a superb road car, made for Grand Touring. If there were a negative, it is tire noise on coarse roads.

GT cars like the F are inherently safer. First are the giant incredible brakes, four-wheel ventilated rotors of 15 and 14 inches in diameter. Brembo makes them and the aforementioned six pot calipers. While they don't cost a dime, they stop in one. Thirty-eight feet from 40 mph. Of course it has every electronic safety aid know to humankind and a few that will be incorporated into the International Space Station over the next few months (that might be a stretch). Besides its torque sensing differential (Torsen), it also has a torque vectoring differential available as well.

There are four drive modes, eco (are you kidding me?), normal where I spent most of my time, sport and sport plus. Sport modes remap the tranny holding it in gear too long. On the tract it would be great, but in normal ,driving normal is where to be. Trust me, if you gotta go, even in normal there are only a handful of cars and a few drivers that will be able to match the F, especially with some driving skill.

Inside are sublime leather seats that lock you in. Perfect. The IP centers on a large tach with a digital speedo inside.

The mouse system is a pad instead and much easier to use than the traditional mouse. Everything is of the highest quality with soft touch leather almost every, except for the carbon fiber.

As a two plus two, most people would think the rear seating is throwaway. Not so. While getting in and out might look difficult, it's easier than it looks. I got back there and it was actually usable with good outward visibility and a very comfortable seat. My brother also spent about 20 minutes back there with a 12-year-old boy and both enjoyed the ride. The trunk is over 10 cubic feet well shaped and has a pass through.

Pricing for the Radical Coupe 350 starts at \$42,790 for RWD and for AWD (only in the 350) add \$2,235. The F starts and ends at \$62,400 plus options. While 19 inch wheels are standard, if you want them hand polished add \$1,500. Pass. Leather over Nuluxe is \$800, buy it. The NAV plus the Mark Levinson sound system adds \$2,840, your choice. The gorgeous Ultrasonic Blue Mica paint adds %95. There are six other colors, all really shiny. Premium package adds heated and ventilated seats, carbon fiber interior, BSM, rear cross traffic alert, those triple beam LED headlamps and a bunch more, \$,400. The moon roof is \$1,100 and my skin doctor says no. With the \$925 shipping from Tahara, Japan, my tester totaled \$74,580. If you consider the competition and Lexus quality, it's well priced and quite the GT.

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.