



The Cato and Vaughan Test Drive Formula

To make valid comparisons and use your time wisely, you need a logical plan for your Test Drive. You must settle on three or four comparable models so that you are comparing apples to apples. To do this, ask each dealer to quote you a price (which might later be further negotiated) based on the equipment you want. For example, if you want air conditioning and a V-6 engine, make sure all your choices are so equipped.

Once you've settled on the vehicles and before you go road testing, we suggest you do some research, checking:

- the vehicle's quality and service reputation;
- residual values – what the vehicle will be worth in 3-5 years;
- for deals out there right now – incentives like cut-rate loans, free gas giveaways and the like.

THE TEST DRIVE

Our road test outlines a sequence of repeatable acts and procedures to evaluate cars based on your own experience. We have identified 10 key areas requiring your judgement. You will grade each area with a score from 1-10, with 10 being the highest possible score. At the conclusion you will have a total score out of a possible 100.

Always begin with a walk-around inspection *before* you go driving. Plan to test all vehicles on the same route, if possible. Include a variety of road surfaces as well as some steep hills, residential areas, parking lots and highways.

Whatever you do, take your time. Buying a new vehicle is a huge investment; you should never be rushed into making a decision. If you feel rushed, walk away and shop elsewhere.

Fill in the following details of the car you are about to drive:

Make:

Model:

Price:

Equipment:

1. Styling and Appearance

Styling is certainly important in a new vehicle, it's also very personal. You'll probably either like the looks of the car or not. So, on a purely subjective basis give the vehicle's styling, both interior and exterior, a mark out of 10. Go with your gut instinct here. If you don't like the looks of the vehicle, you're in for a lot of sad days of driving.

Mark out of 10 _____

2. Occupant Environment:

This is where we consider space and access for both occupants and cargo.

1. Is it roomy and easy to get into and out of? Can you see any protruding surfaces which might injure you in a collision, or get in your way when you exit or enter? And what about the dashboard layout? Are you able to read the instruments in bright sunlight when there is a lot of glare? Work all the various controls and switches. Do they feel solid? Are they conveniently located?
2. Ergonomics – Does the vehicle “fit” you? Is there enough support behind your back and under your knees? What do the seats feel like after a long road test?
3. Visibility – Can you read the gauges easily? Are important controls within your peripheral vision and arm's reach? Check to your right and left over both shoulders to make sure that pillars and other roof pieces are not in your vision. Then check both left and right mirrors to ensure they are big enough and can be properly aligned to show cars passing on your right. Test the wipers and washers.
4. Comfort and convenience – Is there enough storage space in the cabin? What about luggage space in the trunk? Do the rear seats fold down, expanding trunk space? What about head and leg room both front and back? Are vents placed so that air gets to you, your passengers and the windshield for defrosting?
5. Kid-friendly - If kids are in the picture, are there child-proof door locks, child-seat tether anchor points and lock out switches for the power windows?

Mark out of 10 _____

3. Build Quality: Exterior and Interior

This is all about fit, finish, the use of materials and how they come together; we're taking a close look at what's called "build" quality.

Starting with the paint, sweep your eyes and hands over the car's exterior surfaces to make sure the car has a smooth, even paint finish. One thing to look for is something called "orange peel," which is a paint job that has slightly raised bumps resembling the skin of an orange. Such a condition is particularly noticeable in bright sunlight.

Next, notice the gaps between panels, at the doors, trunk and hood. Are all the gaps even and no wider than the lead in a mechanical pencil? Are all trim bits securely fastened, inside and out? Open up the trunk and the engine hood. Do both areas appear to be properly finished?

For the interior, examine and assess the quality of the materials in the upholstery, panels, doors and trim – cheap or rich or somewhere in between? How do they feel to the hand? What general impression do they make?

Mark out of 10 _____

4. Noise, Vibration and Harshness or NVH

Your ownership experience will be largely determined by how comfortable your vehicle feels when you drive it. And at the heart of this is NVH (Noise, Vibration, and Harshness).

Vehicles with low NVH generally have a very rigid, very tight body structure. They don't squeak, rattle and vibrate because the whole package is tight and aerodynamic.

So as you conduct your test drive, listen for sounds and feel for vibrations from the body structure. Are there any sensory intrusions into the cabin which can be traced to the tires, chassis, engine, drivetrain, exterior design (you're looking at aerodynamics) and even the HVAC system (heating, ventilation and air conditioning)?

Mark out of 10 _____

5. Performance

You will want to know how your vehicle accelerates under a variety of conditions: 0-50 km/hour, 0-80 km/hour, 0-100 km/hour, passing from 50-80 km/hour and passing from 80-120 km/hour. You'll need to find a safe and open highway area to do these tests with the aid of a stopwatch. As you are doing this testing, also look for the tendency of the vehicle to pull to one side or another which is sometimes evident in front-wheel-drive cars. This is called "torque steer" and can be dangerous.

For the engine you will want to look at how it starts and idles, how it responds to throttle inputs, what sorts of drivability tendencies are evident, where the engine exhibits its power band responses and overall smoothness.

For the transmission you will want to assess its overall operation, as well as shift feel, effort, smoothness, gear ratios and shift points. If the car is equipped with a manual transmission, assess how it accelerates from gear to gear, taking note of how easy it is to operate the shifter and clutch. Is it a struggle, or is it seamless? With an automatic, note the smoothness of the shifting and how often the transmission "hunts" for the right gear on an uphill stretch.

What you'll ultimately need to know is how well the car accelerates for merging into traffic and passing slow-moving vehicles. Compare your own observations with the dealer-supplied manufacturer's acceleration figures, or those that you have found published elsewhere.

Mark out of 10 _____

6. Vehicle Dynamics: Ride Comfort and Handling

Once you have the vehicle moving, take note of the car's ride. Is it hard or soft or somewhere in between? Does the body roll excessively when you change lanes quickly or when cornering sharply? Try left, right and U turns to evaluate body lean and steering response. Also pay attention to how the car behaves on rough pavement and lumpy surfaces. If you find the car bounces too much, you may want a stiffer suspension.

For steering, note how much effort is involved. Is the steering instantly responsive? Does it feel vague when centred? Does it remain steady at highway speeds? If the steering is power-assisted, is the amount of boost right for you? Try a U -turn in a residential area to test the turning circle or radius.

To test the brakes you'll want to find a quiet stretch of road without any traffic. Try stopping the car quickly from about 70 kilometres an hour. Look for pulling to one side or the other and assess the pedal feel. Is it mushy? Is it stiff? Does the car come to a safe stop in a reasonable distance? And with your foot hard on the brake pedal, does it sink slowly to the floorboards?

Mark out of 10 _____

7. Safety Systems

This is critical. You are looking for standard and optional safety features such as anti-lock braking, traction aids (traction control, stability control, all-wheel drive), air bags and rollover protection. The more of these features that a vehicle has, the safer it will be in dynamic or moving situations. This is all about “active” safety and the features that will help you avoid having an accident in the first place.

Later, after you have completed your road test you will want to research the vehicle’s crash test scores from two major sources: both NHTSA (National Highway Traffic Safety Administration) and the IIHS (Insurance Institute for Highway Safety). The latter two will give you a clear picture of occupant protection in a variety of crash test procedures.

For NHTSA scores, go to <http://www.safercar.gov/>;

For IIHS scores, go to <http://www.hwysafety.org/>.

Based on your research, how safe do you feel you will be while driving in this vehicle?

Mark out of 10 _____

8. The Green Factors

In theory we believe you should score the vehicle in three main areas: fuel economy, emissions and recyclability. You can find out what emissions standard the vehicle meets simply by asking your dealer. For example, is it a ULEV (ultra low emissions vehicle) or a SULEV (super ultra low emissions vehicle) vehicle (with SULEV obviously being better than ULEV)? Also, what percentage of the vehicle is recyclable – 70, 80, 90 per cent?

Emissions and recyclability are of course important, but they are not as easy to quantify as fuel economy, which in the end is arguably the most critical “green” factor. So to simplify scoring, we have put together this fuel economy scale to help you rate your vehicle’s environmental friendliness:

10 points: fuel economy equal to or better than 3.9 litres/100 km (72 mpg) in city driving, 3.3 litres/100 km (86 mpg) in highway driving.

9 points: fuel economy equal to or better than 4.0 litres/100 km (71 mpg) in city driving, 4.2 litres/100 km (67 mpg) in highway driving.

8 points: fuel economy equal to or better than 5.2 litres/100 km (54 mpg) in city driving, 4.3 litres/100 km (66 mpg) in highway driving.

7 points: fuel economy equal to or better than 6.7 litres/100 km (42 mpg) in city driving, 5.2 litres/100 km (54 mpg) in highway driving.

6 points: fuel economy equal to or better than 7.9 litres/100 km (36 mpg) in city driving, 5.9 litres/100 km (48 mpg) in highway driving.

5 points: fuel economy equal to or better than 10.0 litres/100 km (28 mpg) in city driving, 7.5 litres/100 km (38 mpg) in highway driving.

4 points: fuel economy equal to or better than 10.5 litres/100 km (27 mpg) in city driving, 6.7 litres/100 km (42 mpg) in highway driving.

3 points: fuel economy equal to or better than 12.0 litres/100 km (24 mpg) in city driving, 7.7 litres/100 km (37 mpg) in highway driving.

2 points: fuel economy equal to or better than 15.3 litres/100 km (18 mpg) in city driving, 11.1 litres/100 km (25 mpg) in highway driving.

1 point: fuel economy equal to or better than 16.7 litres/100 km (17 mpg) in city driving, 12.1 litres/100 km (23 mpg) in highway driving.

Mark out of 10 _____

9. Market Significance:

This is really all about evaluating the overall importance of a vehicle in the market. We do this in order to award value for innovation and creativity by manufacturers. For the consumer, significant vehicles tend to hold their values better than less significant ones.

Let's be specific here. This year Pontiac introduced a brand new roadster, a two-seat sports car called the Solstice. Hard as it is to believe, the Solstice is the first four-cylinder, open-top sports car ever sold by General Motors or any of its divisions in the more than 100-year history of the company. GM has never done this before. Obviously this is an innovation for GM.

Moreover, because the base Solstice starts at a price significantly lower than the car's main rival, the Mazda MX-5 Miata, the new Pontiac makes a significant statement about sports car affordability. The Solstice creates new and important competition in the marketplace. In a nutshell, because of its pricing and presence, the Solstice should be rewarded for being a significant new entry in the marketplace. Its very existence as an offering has value which should be rewarded.

Let's look at a second example. In 2002, Toyota and GM introduced the Matrix and Pontiac Vibe, two smallish wagon-like vehicles with excellent fuel economy, more than decent road manners and interesting styling. These functional, affordable and fuel efficient wagons were significant new entries in a market now clamouring for more versatile and fuel efficient models. These wagons remain significant entries and deserve to be rewarded. We're trying to get you thinking like an automotive journalist. Go on – is this vehicle something special? Or is this just a knock-off of what everyone else is making? Give the automaker a mark for their innovation and creativity in the vehicle you've been test driving.

Mark out of 10 _____

10. Smile Factor

Now drive back to the dealership, but just before you get out of the car evaluate the “smile factor.” With all the money you’re going to spend on a vehicle, it should put a smile on your face every time you drive it. You’ve just driven this one, are you smiling?

Mark out of 10 _____

Alright, add up the scores and you’ll have a total mark out of one hundred and you’re ready for your next test drive.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Total / FINAL GRADE _____

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