

---

Subject: Re: Ping Wayne - Virago

Posted by [Wayne Parham](#) on Fri, 04 Jun 2004 06:23:46 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Hi Dean, Yes, the Virago is a Harley copy. I bought my first about 15 years ago as a learner. One of my best friends was going to Tulsa University for a mechanical engineering degree, and he rode a Harley. It was cool and I wanted to learn to ride, so I thought I could learn on the Virago. My thinking was that if I threw it down, I wasn't out much money. That was about 100K miles ago. I've gone through one, my learner, and put a zillion miles on it. It served me so well that I got another. Like Harleys, Viragos are very easy to ride because they are so low and have so much bottom end torque. It has such a low center of gravity you can practically get off without putting the kickstand down. And it has so much bottom end torque that you can start out in almost any gear, pushing a Volkswagen uphill without rolling on any gas. Just pop the clutch and go. So they're probably one of the easiest bikes to ride. Viragos and (Evolution/Shovelhead/Panhead/Knucklehead) Harleys share many of the same features. They are air cooled, V-twin engines and similarly tuned, but Viragos don't have pushrods and have wider separation angle between cylinders. Like Harley's, each rod shares a common crankpin but the wider separation angle keeps the mass of both pistons out of phase enough that the engine is easier (possible) to balance. They don't have as long stroke, so they don't have as much torque. That also gives them a little higher RPM limit and makes them less likely to exceed rod bolt stress limits. The rear cylinder runs hotter than the front, just like the Harley, because it is shrouded by the front cylinder. Harley's have both rods on a shared crank pin which means top dead center is 45° between cylinders. That's what gives them that cool sounding lope. On the Virago, each cylinder is 90° apart so counterweight is possible because the mass loads are far enough out of phase that balance weights are not prohibitively large. On a Harley, you have both rods going up at nearly the same time, so opposing counterweight would be huge. Harley-Davidson reciprocating assemblies aren't balanced, and that's why they vibrate so much. Virago's don't vibrate like that because they are able to balance the engine. Wayne

---