



CHARTS SOMETIMES QUOTE RAKE AND TRAIL NUMBERS FOR A MOTORCYCLE CHASSIS, BUT WHAT DOES THIS MEAN?

RAKE (ALSO CALLED CASTER) IS THE ANGLE OF A MOTORCYCLE'S STEERING HEAD OF THE FRAME (A). CHOPPERS HAVE A LOT OF RAKE—THEIR FORKS STICK WAY OUT IN FRONT. SPORTBIKES HAVE MUCH LESS—THEIR FORKS ARE CLOSER TO VERTICAL. A TYPICAL SPORTBIKE MIGHT HAVE A RAKE AS STEEP AS 25 DEGREES, WHILE A CHOPPER MAY BE CLOSER TO 45 DEGREES. A TOURING BIKE IS TYPICALLY AT AROUND 29 DEGREES AND A CRUISER AT 32. MORE RAKE DOES TWO THINGS: ONE, IT MAKES THE WHEELBASE LONGER, AND TWO, IT GENERALLY INCREASES A MOTORCYCLE'S TRAIL.

TRAIL (B) IS MEASURED IN DISTANCE (INCHES OR MILLIMETERS) BETWEEN THE POINT OF THE FRONT WHEEL'S CONTACT WITH THE GROUND AND A LINE DRAWN THROUGH THE AXIS OF THE STEERING HEAD. UNDER NORMAL OPERATION, THIS CONTACT POINT IS ALWAYS SOME DISTANCE BEHIND THE PROJECTED LINE—SOMEWHERE BETWEEN 2 AND 4 INCHES (5–10 CM). THINK OF IT AS HOW FAR THE CONTACT PATCH TRAILS BEHIND THE STEERING AXIS. TOO MUCH TRAIL MAKES A MOTORCYCLE DIFFICULT TO TURN; TOO LITTLE MAKES IT UNSTABLE.