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Additional Information

Isolated Drive System or Cush Drive

Introduced only for Japan model Sportsters, the Isolated Drive System improves rider comfort and ride quality by dampening the mechanical noise and vibration caused by the engine's torque pulses. The rubber compensation elements act like a cushion, absorbing the power pulses from the engine. The motorcycle feels more refined, and is quieter while accelerating, shifting and cruising ¹⁾. It uses a special sprocket (same 68T count as U.S. models), a compensator bowl, (isolators between the two) and inner and outer spacers on the sprocket on cast rear wheels only beginning in 2004 ²⁾ and including laced rear wheels beginning in 2007 ³⁾.

Other threads related to axles/bearings/spacers:

<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-drivetrain/sportster-motorcycle-tires-wheels-and-brakes-aa/128915-spacer-width-size-to-replace-speedo-drive-unit?t=1341850>
<https://www.xlforum.net/forum/sportster-motorcycle-forum/sportster-motorcycle-drivetrain/sportster-motorcycle-tires-wheels-and-brakes-aa/81523-00-05-front-wheel-spacer-width?t=600256>

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¹⁾

information from Stormy Hill Harley

²⁾

2004 HD Sportster Parts Catalog pg 63

³⁾

2007 HD Sportster Parts Catalog pg 67

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