

**TRANSMISSION SHIFTER CAM ASSEMBLY - SPORTSTER**

If a shifting problem develops on a Sportster model after considerable mileage, it could be caused by a loose shifter cam assembly. This results in sticking when moving the foot shift lever into various gear positions or may cause the transmission to suddenly jump out of gear.

The shifter cam assembly is secured to the access cover by a bolt and lockwasher with two dowel pins registering in the access cover. If the shifter cam assembly becomes loose, the dowel pins, which are originally a press fit in the support, may work loose into the access cover holes. When the dowel pins have finally worked out of the support entirely, the shifter cam will tip, causing mechanism to bind.

If a Sportster does develop a shifting problem and you are sure it is not caused by a dragging clutch, before removing the access cover to check the internal parts of the transmission, remove the chain cover and check for the following.

Try tightening the bolt that holds the shifter cam assembly to the access cover. If the bolt appears to be tight yet bolt and support together move slightly in each direction, the bolt is bottoming in the tapped hole in the support before it draws the two pieces tight.

This condition requires the following corrections:

1. If assembly is not tight, remove clutch and access cover and check to see that dowel pins are a press fit in the support holes and a snug fit in the access door holes. If there is only slight wear, try replacing standard dowel pins, part No. 9220A with oversize dowel pins 9225A (+.001), 9227A (+.002) or 9229A (+.003). If a correct fit cannot be obtained because holes are worn out of round, install a new pawl carrier support, part No. 34514-52 and/or access cover, part No. 34844-57, as necessary.
2. When reassembling the shifter cam assembly to the access cover, be sure that bolt, part No. 4621 and lockwasher part No. 37080-41 secure it tightly. If necessary, shorten bolt 1/16 inch (one thread) by removing stock from threaded end of bolt. If bolt still bottoms, threaded hole is too shallow and pawl carrier support, part No. 34514-52 must be replaced.

See your Sportster Service Manual for correct transmission assembly procedure.

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The **Old Sportster and K-model Research Group (OSKRG)** is a group of individuals who have spent years researching the minute differences in the parts, fit, finish, and configuration of the Harley-Davidson 1952-1956 K-Models, and (early) 1957-1969 Sportster models.

The results of our research is published on our website  
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