TECHTIPS

SEPTEMBER 2000 ***MOTORCYCLE*** **M00–043**

SUBJECTS : 1. FINAL DRIVE ALIGNMENT PROCEDURE - XVS650/XVS1100

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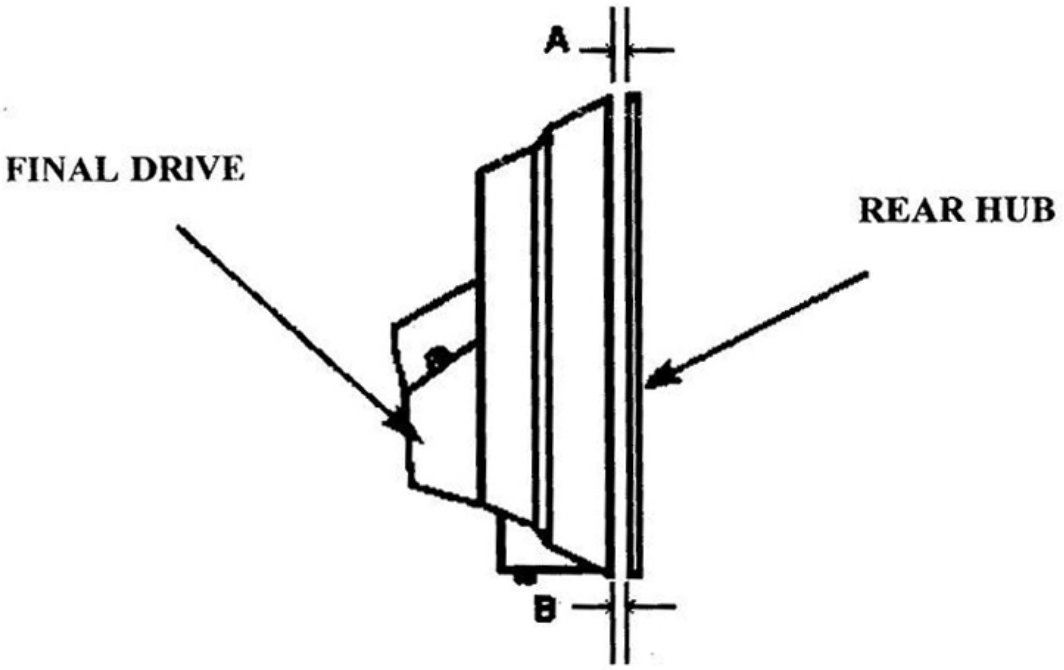
1. FINAL DRIVE ALIGNMENT PROCEDURE - XVS650/XVS1100

Whenever service is performed on the Rear Wheel/Final Drive area (e.g., tire changes),make sure the Final Drive Assembly is correctly aligned during reassembly. If the Final Drive mounting bolts are not tightened in correct sequence, the Final Drive Assembly can be misaligned and result in a "creaking" noise at low speeds.

To quickly check for proper alignment, visually check the gap between the Final Drive Assembly and the Rear Hub at the top and bottom as illustrated below:

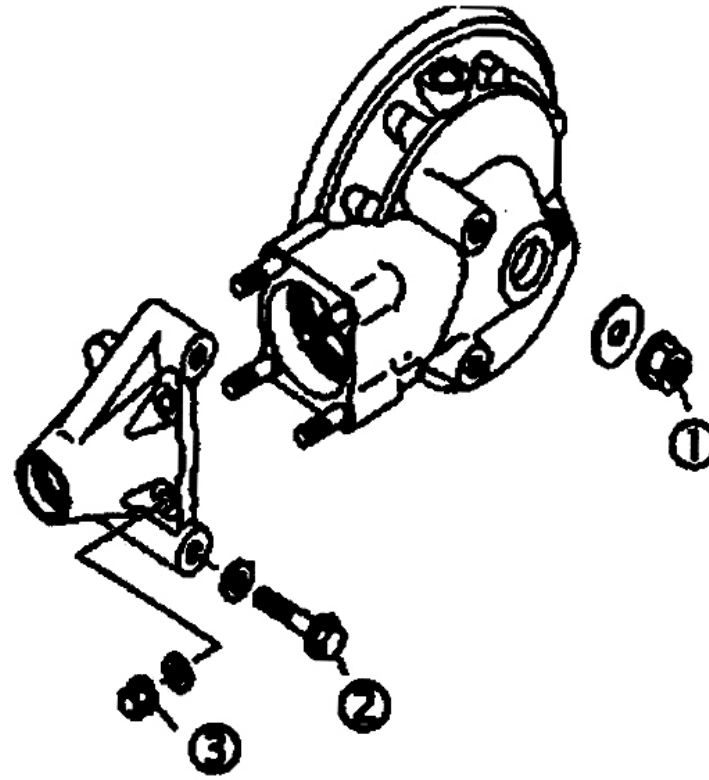
NOTE: This check is done with the rear end completely together (wheel installed and axle torqued).



NOTE: "A" should be equal to "B."

Use the following procedure to properly align the Final Drive Assembly:

1. Loosen Axle Nut (1), four Final Drive Mounting Bolts (2), and four Acorn Nuts (3).
2. "Snug" the four Final Drive Mounting Bolts (2), but do not torque at this time.
3. Torque the four Acorn Nuts (3) to the proper specification.
4. Torque the four Final Drive Mounting Bolts.
5. Torque the Rear Axle Nut (1) to the proper specification.

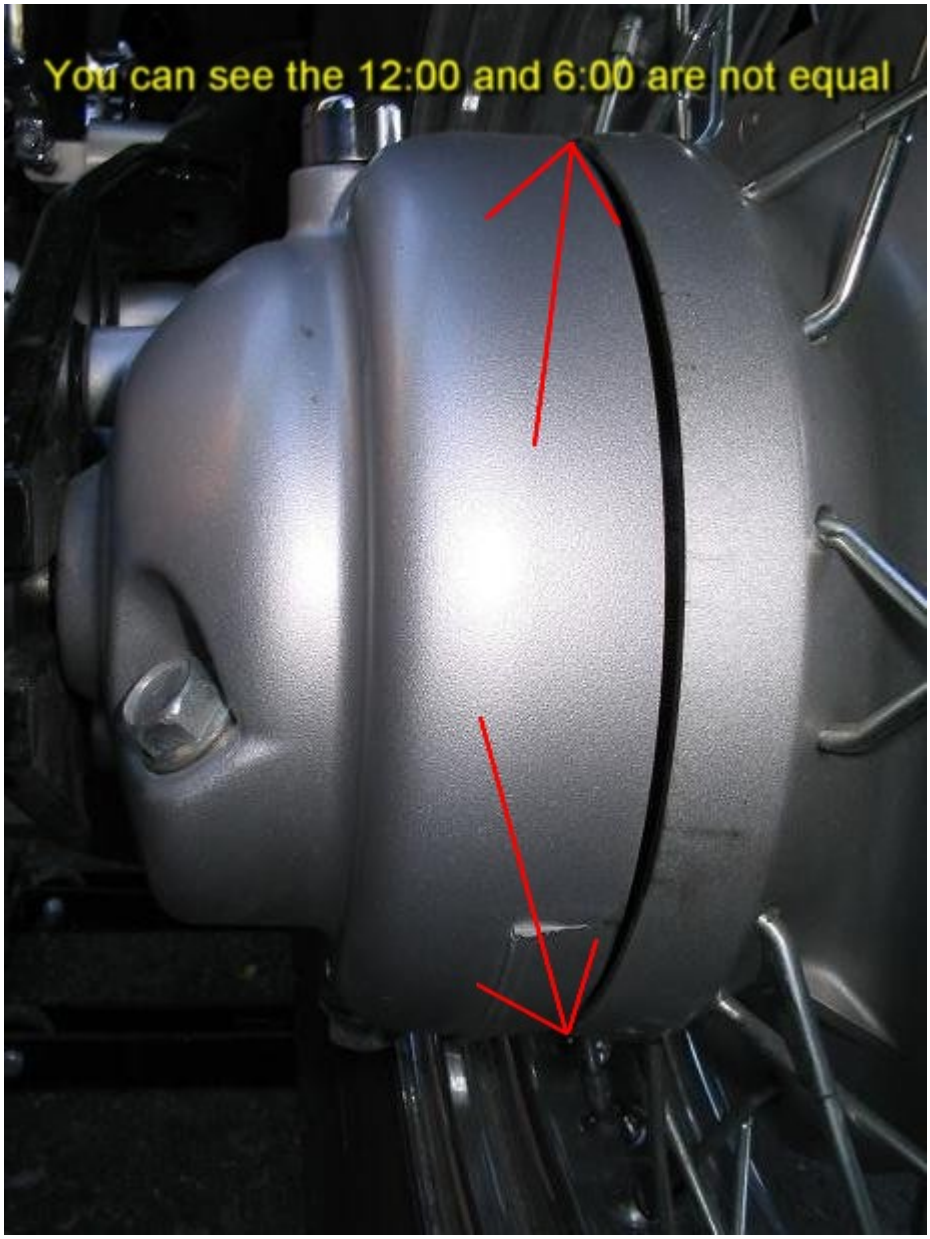


NOTE: Make sure to verify measurement "A" and "B" when completed.

Model	Fastener	Torque Specification
XVS650	Rear Axle Nut	92Nm (9.2m-kg, 67 ft-lb)
	Final Drive Bolts	70Nm (7.0m-kg, 51 ft-lb)
	Acorn Nuts	42Nm (4.2m-kg, 30 ft-lb)
XVS1100	Rear Axle Nut	107Nm (10.7m-kg, 77 ft-lb)
	Final Drive Bolts	70Nm (7.0m-kg, 51 ft-lb)
	Acorn Nuts	42Nm (4.2m-kg, 30 ft-lb)

Here is the before picture of the 9:00 and 3:00 gaps

Here is the before picture of the 12:00 and 6:00 gaps



Step 1

Loosen the drum side stay nut. Loosen the axle bolt/nut. Loosen the 4 drive unit bolts. Loosen the spline housing acorn nuts.

Step 2

Check the 12:00 and 6:00 gaps. If the 12:00 position is larger than the 6:00 position, add 1 shim on each of the top 2 drive unit bolts. If the 6:00 position is larger than the 12:00 position, add 1 shim on each of the bottom 2 drive unit bolts.

Step 3

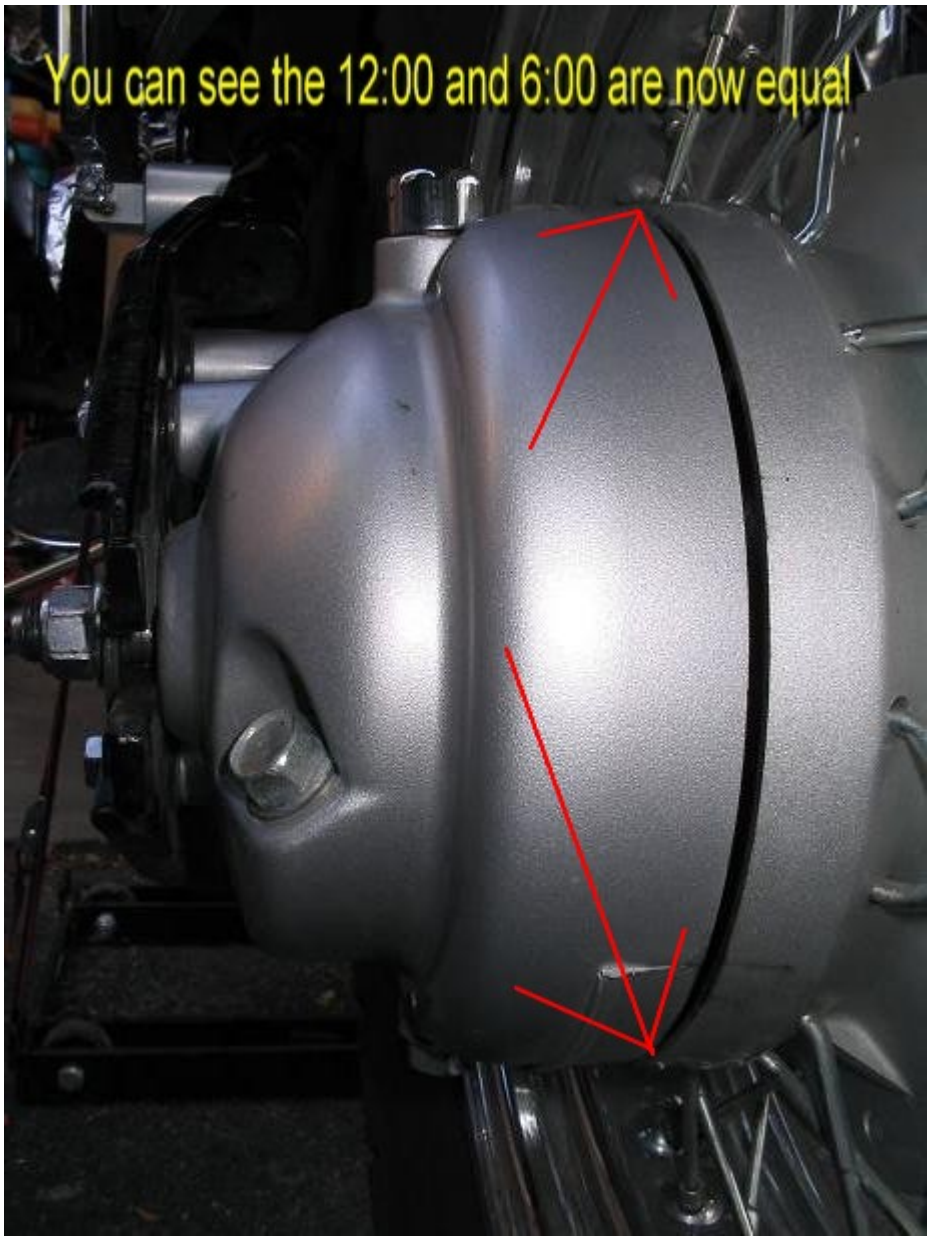
Finger tighten the 4 drive unit bolts. Torque the acorn nuts to spec. Torque the 4 drive unit bolts to spec.

Step 4

Tighten the axle bolt/nut to get the 9:00 and 3:00 gaps equal. Torque to spec now. Torque the drum stay nut to spec.

Check the gaps again to make sure they have not changed. If they have, repeat from Step 1 until they are all equal.

Here is the picture of the 12:00 and 6:00 gaps equal



Here is the picture of the 9:00 and 3:00 gaps equal

Here is a picture of one of the shims I had to install to properly align the drive unit to the wheel hub for the 12:00 and 6:00 gaps

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