MOTORCYCLE | 10/20/2005 | M2005-015

TECH EXCHANGE

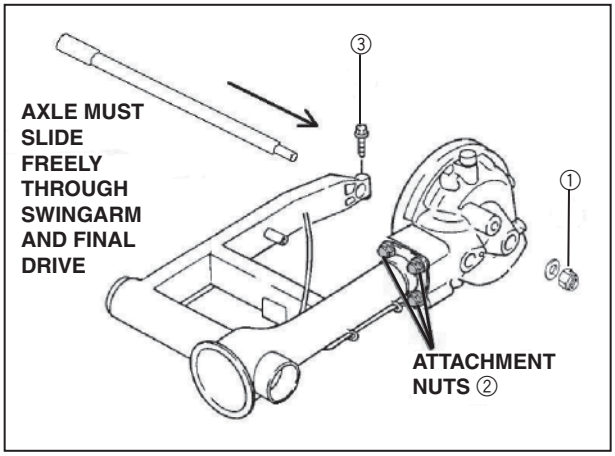
SUBJECTS: **1. Eliminating Creaking Noises from the Rear Wheel - XVZ13TF (Royal Star Ventures)/CT (Royal Star Tour Deluxe)**

Eliminating Creaking Noises from the Rear Wheel – XVZ13TF (Royal Star Ventures)/CT (Royal Star Tour Deluxe)

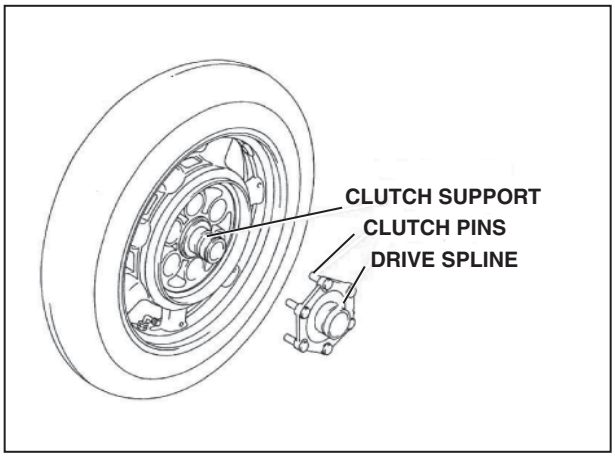
Whenever service is performed on the Rear Wheel/Final Drive area (e.g., tire changes), make sure the Final Drive Assembly is correctly lubricated and aligned during reassembly. If the Final Drive Assembly mounting bolts are not tightened in correct sequence, the Final Drive Assembly can be misaligned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

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

1. Remove the rear wheel (refer to the appropriate Service Manual) and check the alignment of the final drive to the swingarm by temporarily installing the axle without the rear wheel installed. If the axle is hard to install and binds when it is inserted, loosen the attachment nuts (acorn nuts) that secure the final drive to the swingarm. Align the final drive so the axle can be inserted freely without binding, then tighten the axle pinch bolt followed by the final drive attachment nuts. Last, loosen the axle pinch bolt and insure the axle is free and does not bind.



2. Remove the final drive clutch hub from the rear wheel. Check the rear wheel and final drive clutch hub components for wear or damage and replace any worn or damaged parts (see illustration below).



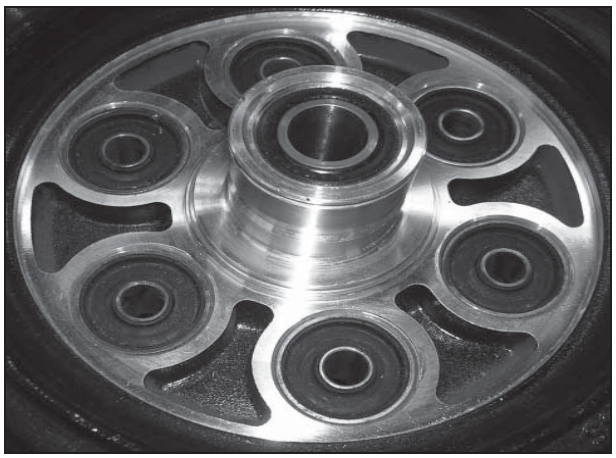
Model	Fastener	Torque Value
XVZ13TF, CT	Rear Axle Nut ①	150Nm (15.0m-kg, 110 ft-lb)
	Acorn Nuts ②	42Nm (4.2m-kg, 30 ft-lb)
	Rear Axle Pinch Bolt ③	23Nm (2.3m-kg, 17 ft-lb)

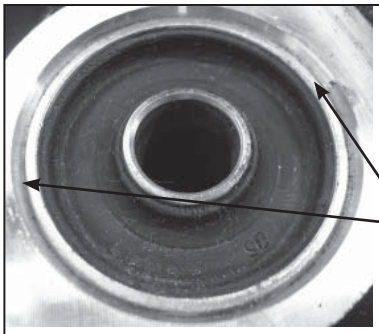
If you have technical tips you think other dealers could use, let us know. You’ll receive credit in the Tech Exchange for the ideas we use, and we’ll send you an exclusive Yamaha Tech Exchange hat as our thanks.
Send your tips to: Yamaha Motor Corporation, USA, Attn: Tech Exchange, P.O. Box 6555, Cypress, CA 90630

3. Clean the clutch hub pins, splines, inner surface, and the clutch hub support on the rear wheel.

4. Check the clutch hub drive pins for evidence of incorrect damper bushing position. If any of the drive pins show evidence of bottoming out on the damper bushing, press the damper bushings further into the wheel hub using an hydraulic press.

THIS CLUTCH HUB DRIVE PIN SHOWS EVIDENCE IT HAS BOTTOMED OUT ON THE DAMPER BUSHING. THE WEAR MARKS SHOULD NOT EXTEND TO THE BEVEL AT THE BASE OF THE PIN AS SHOWN HERE.



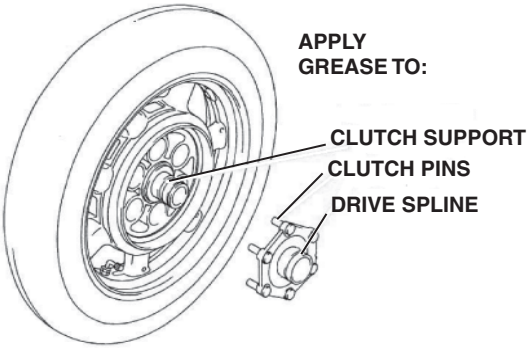


IF NEEDED, PRESS DAMPER FURTHER INTO THE WHEEL HUB TO ELIMINATE DRIVE PIN BOTTOMING.

NOTE: BE SURE TO PRESS THE OUTSIDE DIAMETER OF THE DAMPER BUSHING ONLY.

5. Install the clutch hub onto the wheel in all six possible positions. Make note of the position the clutch hub fits the easiest onto the wheel and reinstall it onto the wheel in that position after applying grease as described in step 6 below.

6. Apply a light coating of Yamaha Multipurpose Grease (P/N: ACC-GREAS-16-TB) or equivalent to the clutch hub drive pins, rear wheel drive splines and the clutch hub support on the rear wheel.



7. Reinstall the rear wheel as instructed in the applicable Service Manual for the model.

Part Number	Description	Qty.	Dealer Cost	Retail Cost
ACC-GREAS-16-TB	Yamaha Multipurpose Grease	1	$2.03	$ 3.95