

Technical Bulletin

Rear Wheel Alignment & Drive Belt Tension Adjustment

Tools Required

Tape measure	*Belt tension gauge Part No. 99-215
15/16" socket	*Alignment Tool Part No. 99-210 (Chief)
3/16" hex bit	*Alignment Tool Adapter for Scout Part No. 99-216
1/2" wrench	Torque wrench
	6" steel rule
	Pencil & Masking tape

Materials Required

Blue Loctite 242
Cotter Pin

*Tools may be purchased by calling your P&A processor

Rear Wheel Alignment & Drive Belt Tension Adjustment

Read this bulletin carefully and thoroughly before commencing work. If you do not understand the instructions or have questions, see your supervisor. If you are unsure of any of the procedures, please contact your Indian Field Service Manager (FSM).

Description

These instructions are the correct procedure for aligning the rear wheel and adjusting the drive belt tension.

The indicators of a misaligned drive belt are commonly screeching or clicking during travel, or screeching/chirping during acceleration. Other indicators will include early replacement of the drive belt and excessive wear on the left or RH edges of the belt.

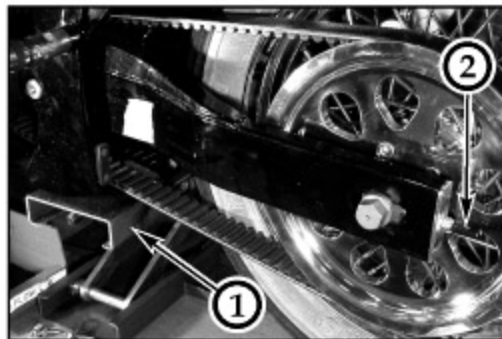
CAUTION: While belt tension and alignment is achieved by adjusting the rear axle, it is vital the wheel alignment is not compromised during this procedure.

Preparation

- 1 Place a jack under the transmission and raise the bike so that the rear wheel is approximately 1" off the ground.

Wheel alignment

Before belt tension can be adjusted, the rear wheel must be correctly aligned. To align the rear wheel, use the measuring tool 99-210. For the Scout the alignment tool adapter 99-216 will also be required.



- Remove the 2 plastic thread protectors from the RH and LH axle adjuster studs.
- Remove the cotter pin and loosen the axle nut approximately 2 revolutions.
- Using the axle measuring tool (99-210) and with the extension piece attached at the swing arm end (A), measure the distance between the center of the swing arm pivot and the center of the rear axle. Firmly lock the T-bolt on the tool in place. For the Scout the alignment tool adapter 99-216 will also be required.

Note: For correct wheel alignment this measurement must be transferred to the right side of the bike.

- With the extension piece removed, position the tool on the right side of the bike between the swing arm pivot and rear axle.
- Using a 1/2" wrench, turn the RH axle adjuster nut until the right side axle measurement is equal to the left side.

Inspection

With the rear wheel correctly aligned, the belt tension can now be adjusted.

- To gauge the correct tension of the drive belt, first establish the center of the belt between the rear axle and the transmission shaft.

Measure 12" forward from the center of the rear axle.

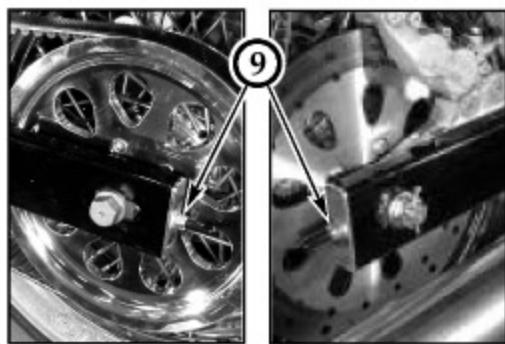
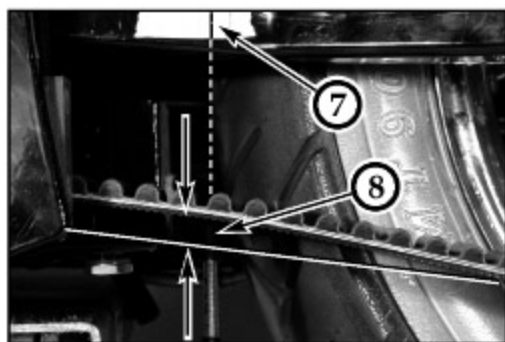
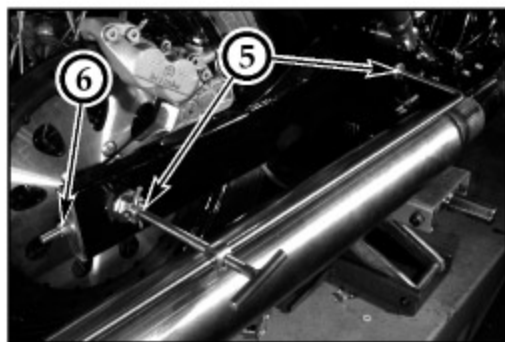
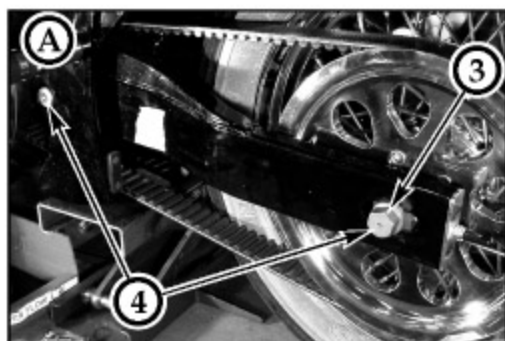
Tip: Stick a piece of masking tape on the swing arm and mark off 12" with a pencil.

- Using a 6" steel rule and a belt tension gauge set to 10lb, deflect the lower run of the belt upwards at the 12" mark. Note the deflection dimension of the belt. Rotate the rear wheel half a revolution and re-check the belt tension. Do this several times. Readings may differ, but should fall within the 3/8" to 1/2" range.

Drive Belt Tension Adjustment

- To adjust the tension on the drive belt, turn the adjuster nuts on both sides of the bike equally. This adjusts the tension of the belt whilst keeping the axle correctly aligned.

CAUTION: While the tension of the drive belt is achieved by turning the adjusters, the measurement between the axle and swing arm pivot on both sides of the bike **MUST** remain equal. Turn both adjusters in equal increments.



- 10 Re-check the tension of the drive belt in several places by rotating the wheel and adjust again if necessary.
- 11 Tighten the axle nut to 60-65ft/lbs and fit a new cotter pin. Check the distance between the center of the swing arm pivot and the center of the rear axle is equal on both sides of the bike.
- 12 Replace the 2 plastic thread protectors to the axle adjuster studs.

Belt Alignment.

- 13 To check the correct alignment of the drive belt, rotate the wheel alternately forwards and backwards, noting the belt travel left to right on the drive pulley.

With the belt to the right side of the pulley, it should take approximately 15 revolutions of the rear wheel for the belt to track to the left side. Excessive travel or force to the left or right will cause the belt to ride-up on the pulley flanges causing screeching, chirping or clicking, resulting in a damaged drive belt.

WARNING: In severe cases the drive belt will ride off the pulley completely.

- 14 While rotating the wheel in a forward direction, view the underside of the belt/pulley. The belt climbing on the LH flange will indicate incorrect alignment.

