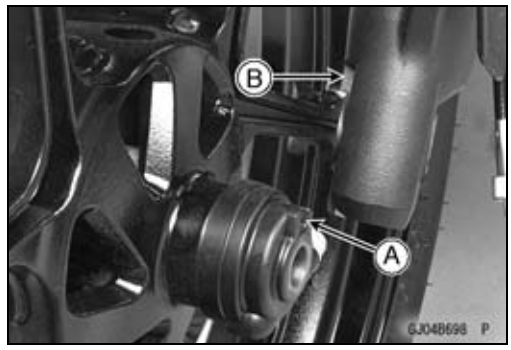
## Wheels (Rims)

- Install the front wheel so that the speedometer gear housing stop [A] fit into the fork leg projection [B].



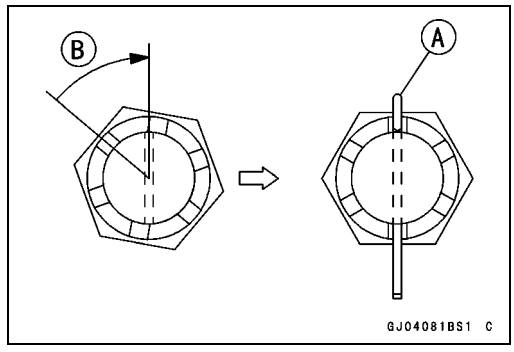

- Insert the front axle, and install the washer.
- Tighten:

**Torque - Front Axle Nut: 88 N·m (9.0 kgf·m, 65 ft·lb)**

- Insert a new cotter pin [A].

**NOTE**

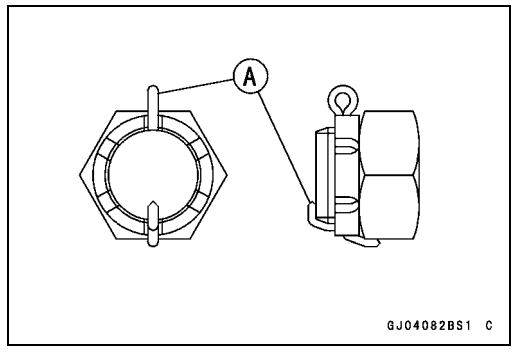
○*When inserting the cotter pin, if the slots in the nut do not align with the cotter pin hole in the axle, tighten the nut clockwise [B] up to next alignment.*
○*It should be within 30°.*
○*Loosen once and tighten again when the slot goes past the nearest hole.*



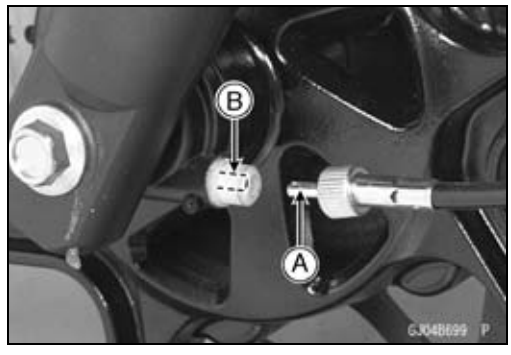

- Bend the cotter pin [A] over the nut.

**⚠ WARNING**

**If the rear axle nut is not securely tightened or the cotter pin is not installed, an unsafe riding condition may result.**




- Install the speedometer cable so that the drive notch [A] of it fits into the projection [B] of the speedometer pinion in the housing.




- Install the removed parts (see appropriate chapters).
- Check the front brake effectiveness (see Brake Operation Inspection in the Periodic Maintenance chapter).

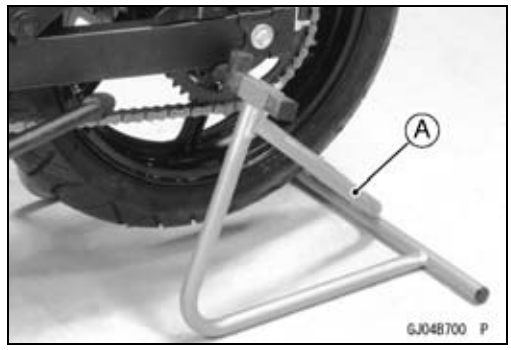
**⚠ WARNING**

**Do not attempt to drive the motorcycle until a full brake lever is obtained by pumping the brake lever until the pads are against the disc. The brake will not function on the first application of the lever if this is not done.**

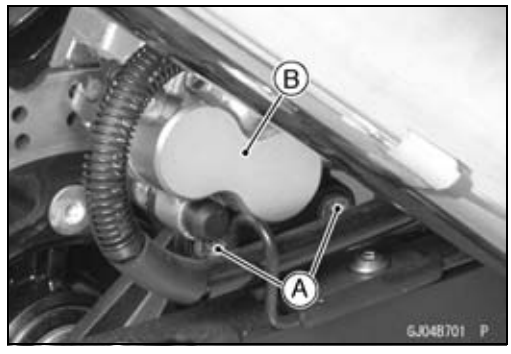
## Wheels (Rims)

### *Rear Wheel Removal*

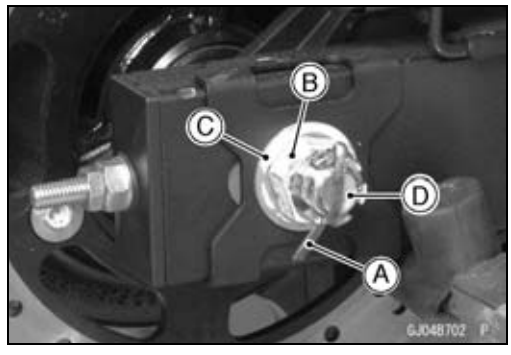
- Raise the rear wheel off the ground with the stand [A].



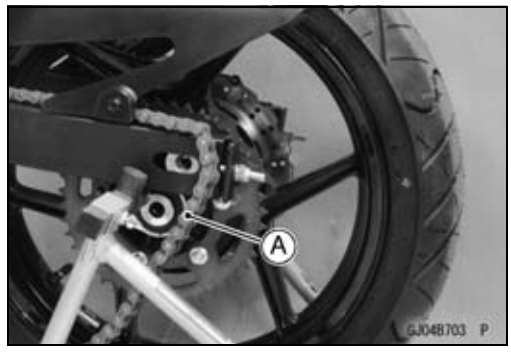

- Remove:
  Rear Caliper Mounting Bolts [A]
  Rear Caliper [B]




- Remove:
  Cotter Pin [A]
  Axle Nut [B]
  Washer [C]
  Axle [D] (from Left Side)




- Remove the drive chain [A] from the rear sprocket toward the left.
- Move the rear wheel back and remove it.

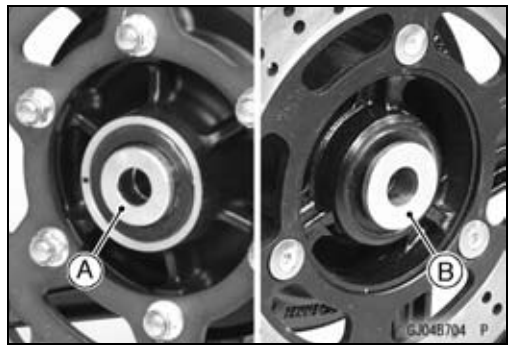



**CAUTION**

**Do not lay the wheel on the ground with the disc facing down. This can damage or warp the disc. Place blocks under the wheel so that the disc does not touch the ground.**

### *Rear Wheel Installation*

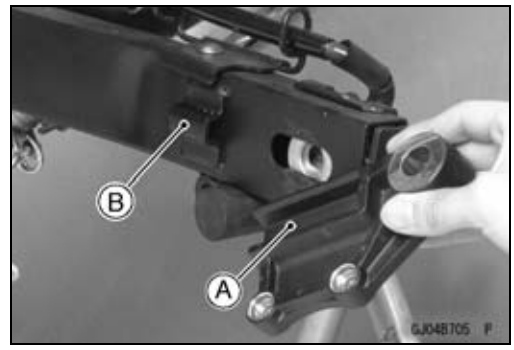
- Apply high-temperature grease to the grease seal lips.
- Fit the collars on the both sides of the hub.
  Left Side Collar [A]
  Right Side Collar [B] (with Flange)



## Wheels (Rims)

- Engage the drive chain with the rear sprocket.
- Install the caliper bracket [A] onto the swingarm stop [B].
- Insert the axle from the left side of the wheel, and tighten the axle nut.

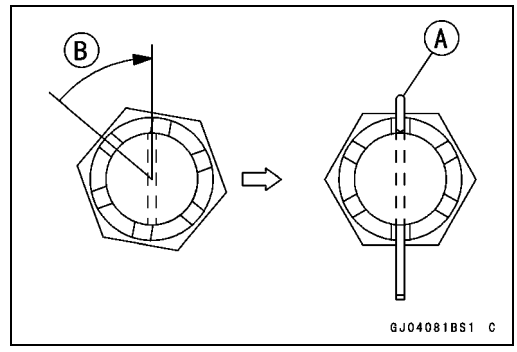
**Torque - Rear Axle Nut: 98 N·m (10.0 kgf·m, 72.3 ft·lb)**




- Insert a new cotter pin [A].

**NOTE**

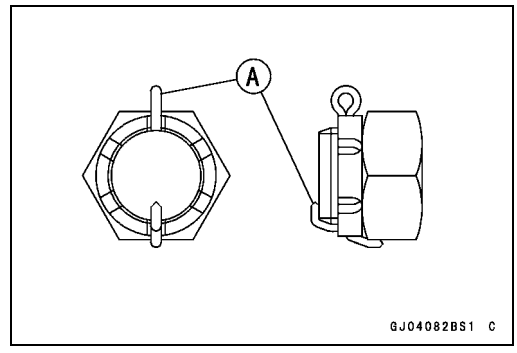
○*When inserting the cotter pin, if the slots in the nut do not align with the cotter pin hole in the axle, tighten the nut clockwise [B] up to next alignment.*
○*It should be within 30°.*
○*Loosen once and tighten again when the slot goes past the nearest hole.*




- Bend the cotter pin [A] over the nut.

**⚠ WARNING**

**If the rear axle nut is not securely tightened or the cotter pin is not installed, an unsafe riding condition may result.**



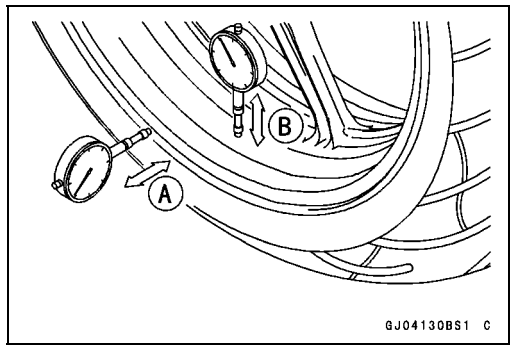

- Adjust the drive chain slack after installation (see Drive Chain Slack Inspection in the Periodic Maintenance chapter).
- Install the rear caliper (see Caliper Installation in the Brakes chapter).
- Check the rear brake effectiveness (see Brake Operation Inspection in the Periodic Maintenance chapter).

**⚠ WARNING**

**Do not attempt to drive the motorcycle until a full brake pedal is obtained by pumping the brake pedal until the pads are against the disc. The brake will not function on the first application of the pedal if this is not done.**

## Wheels (Rims)

### *Wheel Inspection*




- Raise the front/rear wheel off the ground.

**Special Tools - Jack: 57001-1238**
**Jack Attachment: 57001-1608**

- Spin the wheel lightly, and check for roughness or binding.

★If roughness or binding is found, replace the hub bearings (see Hub Bearing Removal/Installation).

- Inspect the wheel for small cracks, dents, bending, or warp.

★If there is any damage to the wheel, replace the wheel.

- Remove the wheel, and support it with the tire by the axle.
- Measure the rim runout, axial [A] and radial [B], with a dial gauge.

★If rim runout exceeds the service limit, check the hub bearings (see Hub Bearing Inspection).

★If the problem is not due to the bearings, replace the wheel.

**Rim Runout (with tire installed)**
**Standard:**

| | |
|---|---|
| **Axial** | **TIR 0.5 mm (0.02 in.) or less** |
| **Radial** | **TIR 0.8 mm (0.03 in.) or less** |

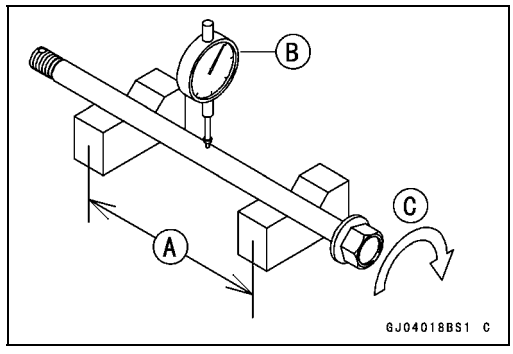
**Service Limit:**

| | |
|---|---|
| **Axial** | **TIR 1.0 mm (0.04 in.)** |
| **Radial** | **TIR 1.0 mm (0.04 in.)** |

**⚠ WARNING**

**Never attempt to repair a damaged wheel. If there is any damage besides wheel bearings, the wheel must be replaced to insure safe operational condition.**

### *Axle Inspection*




- Remove the front and rear axles (see Front/Rear Wheel Removal).
- Visually inspect the front and rear axle for damages.

★If the axle is damaged or bent, replace it.

- Place the axle in V blocks that are 100 mm (3.94 in.) [A] apart, and set a dial gauge [B] on the axle at a point halfway between the blocks. Turn [C] the axle to measure the runout. The difference between the highest and lowest dial readings is the amount of runout.

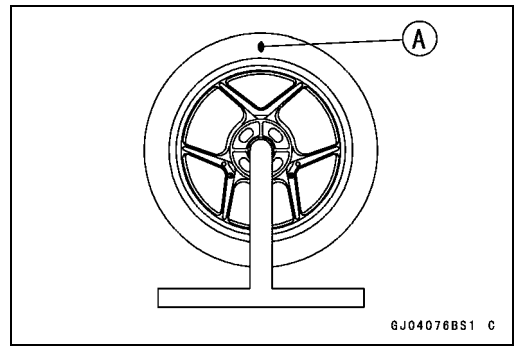
★If axle runout exceeds the service limit, replace the axle.

**Axle Runout/100 mm (3.94 in.)**

| | |
|---|---|
| **Standard:** | **TIR 0.1 mm (0.004 in.) or less** |
| **Service Limit:** | **TIR 0.2 mm (0.008 in.)** |

## Wheels (Rims)

### *Balance Inspection*

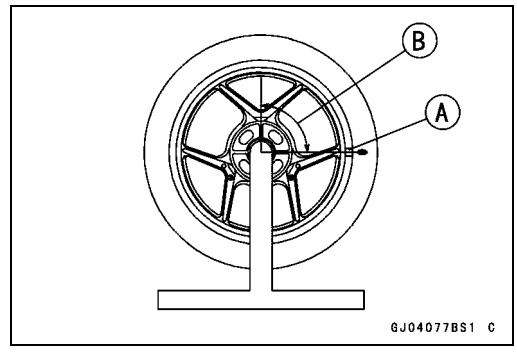



- Remove the front and rear wheels (see Front/Rear Wheel Removal).
- Support the wheel so that it can be spun freely.
- Spin the wheel lightly, and mark [A] the wheel at the top when the wheel stops.

○Repeat this procedure several times. If the wheel stops of its own accord in various positions, it is well balanced.

★If the wheel always stops in one position, adjust the wheel balance (see Balance Adjustment).

### *Balance Adjustment*

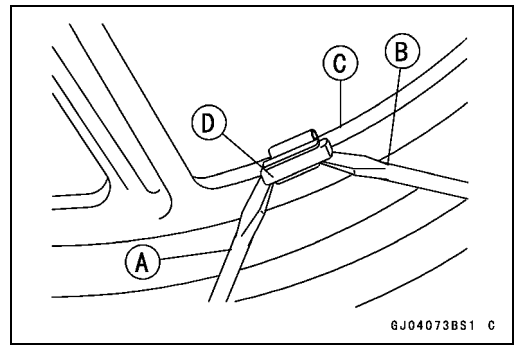



- If the wheel always stops in one position, provisionally attach a balance weight [A] on the rim at the marking using adhesive tape.
- Rotate the wheel 1/4 turn [B], and see whether or not the wheel stops in this position. If it does, the correct balance weight is being used.

★If the wheel rotates and the weight goes up, replace the weight with the next heavier size. If the wheel rotates and the weight goes down, replace the weight with the next lighter size. Repeat these steps until the wheel remains at rest after being rotated 1/4 turn.

- Rotate the wheel another 1/4 turn and then another 1/4 turn to see if the wheel is correctly balanced.
- Repeat the entire procedure as many times as necessary to achieve correct wheel balance.
- Permanently install the balance weight.

### *Balance Weight Removal*

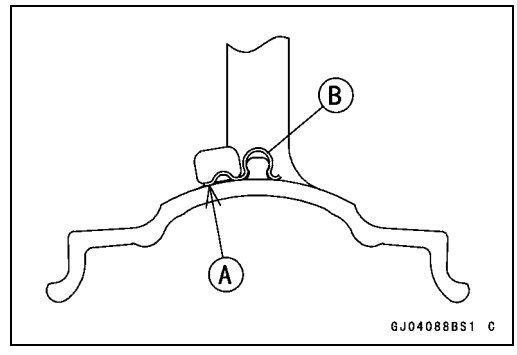



- Insert a regular tip screwdrivers [A] [B] between the rib [C] and the weight [D] as shown in the figure.
- Pry the balance weight with two screwdrivers and remove the balance weight.
- Discard the used balance weight.

**CAUTION**

**Do not tap the screwdrivers. The rim could be damaged.**

### *Balance Weight Installation*




- Check if the weight portion has any play on the blade [A] and clip [B].

★If it does, discard it.

**⚠ WARNING**

**If the balance weight has any play on the rib of the rim, the blade and/or clip have been stretched. Replace the loose balance weight. Do not reuse used balance weight. Unbalanced wheels can create an unsafe riding condition.**

## Wheels (Rims)

**Balance Weight**

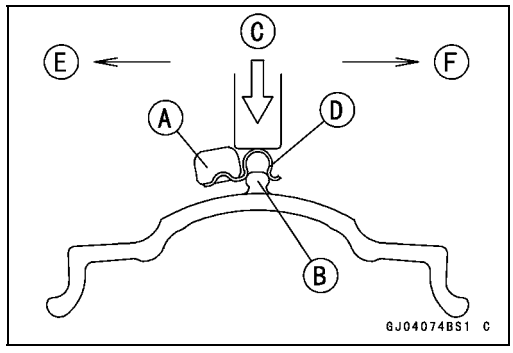
| Part Number | Weight |
|---|---|
| 41075-0007 | 10 g (0.35 oz.) |
| 41075-0008 | 20 g (0.71 oz.) |
| 41075-0009 | 30 g (1.06 oz.) |

**NOTE**

○*Balance weights are available from Kawasaki dealers in 10, 20, and 30 grams (0.35, 0.71, and 1.06 oz.) sizes. An imbalance of less than 10 grams (0.35 oz.) will not usually affect running stability.*

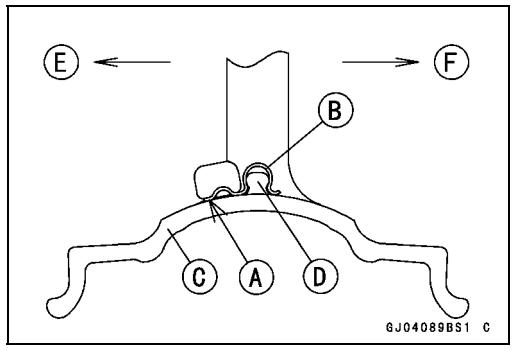
○*Do not use four or more balance weight (more than 90 gram, 3.17 oz.). If the wheel requires an excess balance weight, disassemble the wheel to find the cause.*

● Slip the balance weight [A] onto the rib [B] by pushing or lightly hammering [C] the clip [D].
Left Side [E]
Right Side [F]




● Be sure to install the balance weight.

○Check that the blade [A] and clip [B] are fully seated on the rim [C] and that the clip is hooked over the rib [D].
Left Side [E]
Right Side [F]



## Tires

### *Air Pressure Inspection/Adjustment*

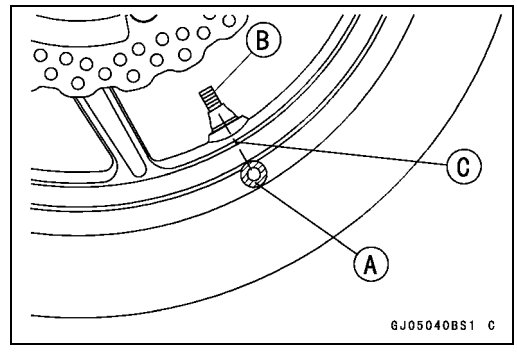
- Refer to the Air Pressure Inspection in the Periodic Maintenance chapter.

### *Tire Inspection*

- Refer to the Wheel/Tire Damage Inspection in the Periodic Maintenance chapter.

### *Tire Removal*

- Remove:
  Wheels (see Front/Rear Wheel Removal)
  Valve Core (Let out the air)
- To maintain wheel balance, mark the valve stem position on the tire with chalk so that the tire can be reinstalled in the same position.
  Chalk Mark or Yellow Mark [A]
  Air Valve [B]
  Align [C]

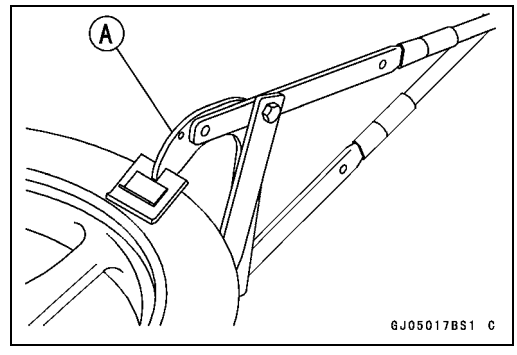



- Lubricate the tire beads and rim flanges on both sides with a soap and water solution or rubber lubricant. This helps the tire beads slip off the rim flanges.

| CAUTION |
| --- |
| **Never lubricate with engine oil or petroleum distillates because they will deteriorate the tire.** |

- Break the beads away from both sides of the rim with the bead breaker [A].

  **Special Tool - Bead Breaker Assembly: 57001-1072**




- Step on the side of the tire opposite the valve stem and start prying the tire off the rim near the air valve with tire irons [A].

  **Special Tools - Rim Protector [B]: 57001-1063**
  **Bead Breaker Assembly: 57001-1072**