INSTALLATION INSTRUCTION

Hydraulic Disc Brake System

SECTION 1 GENERAL WARNINGS & CAUTIONS

- Read instructions thoroughly before attempting any work with the Tektro hydraulic disc brakes. It is highly recommended that you see the service of an authorized Tektro Service Center or other qualified mechanical service. The disc brake pads, calipers and rotors may become extremely hot when used. Serious injury could result from contact with a hot brake system. Care should be taken not to touch the caliper, rotor or brake disc while it is hot. Do not use the brake to cool before attempting to service it in any way.
- Stop riding the bicycle immediately if the brake fluid is leaking or if there is an insufficient amount of brake fluid resulting in reduced or no braking power. Proceed with caution to make the proper repairs. Continued operation with braking brakes or insufficient brake fluid could result in a loss of braking power which may cause serious injury or death.
- Hydraulic disc brakes have a confident braking power. Care should be taken during operation to properly maintain and control the bicycle.
- Tektro hydraulic disc brake is not assigned to work with the bicycle upgrade down. The brake may not work correctly and a serious accident could occur. The bicycle is turned upgrade down. Be sure to operate the brake to 2-3 times to check the normal operation.

CAUTION

Before every ride: confirm the brake pad thickness is greater than 2.5mm thickness. (metal plate & wear material)
- Pads and rotors must be kept clean and free of all contaminants including but not limited to all lubricants, hydraulic fluid and solvents.
- If the pads or rotors become contaminated, you must discard them and replace them with a new set.
- The brake pads are specifically formulated to achieve optimum use with the Tektro hydraulic disc brake system. Tektro disc brake systems do not guarantee performance with any non-Tektro brand brake pads.

PRECAUTIONS

Methods for using mineral oil

- Wear safety glasses at all times when using mineral oil. Contact with the eyes may cause irritation. If mineral oil comes in contact with the eyes, immediately flush with water and seek medical attention.
- Wear anti-slip gloves and long sleeves at all times when using mineral oil. Contact with the skin may cause irritation. If mineral oil comes in contact with the skin, immediately wash with soap and water. If skin irritation develops, seek medical attention.
- Make sure your work area is well ventilated. If mineral oil is inhaled, the fumes from the mineral oil may be harmful to your health. If you feel dizzy, nauseous or any discomfort from inhalation of mineral oils, seek medical attention.
- Do not ingest mineral oil. Excretion of mineral oil may cause severe abdominal distress and vomiting and is harmful to your health. Ingested, immediately contact your nearest poison control center and seek medical attention.
- Keep mineral oil away from children.
- Do not eat or put the mineral oil container. Avoid excessive heat or pressure which may cause the mineral oil to explode or catch fire.

Waste Oil

- Hide it according to the laws of your country.

How to Store Mineral Oil

- Please keep it under normal room temperature and in a dark place.
- Keep it out of direct sunlight.

GENERAL MAINTENANCE

- Pad replacement: Pads should be replaced if they become contaminated or have less than 2.5mm thickness. (metal plate & wear material)
- Before riding: Check the pads for wear or contamination. Check the holes in the rotor and caliper for contamination. Check if the brake system is operating correctly.
- After riding: Remove any rust or corrosion from the rotor skin on the caliper. Check the caliper body with a cloth.
- Regular intervals: Check the oil level in the reservoir. Lubricate the brake lever pivot with grease.
- When reassembling the brake after cleaning, it is recommended that the bolts be tightened to the correct torque specifications.

SECTION 2 INSTALLATION & ADJUSTMENT

Tools and Equipment Required

The following tools are necessary to install the Tektro hydraulic disc brake:

- 2.5mm Allen wrench
- 3mm Allen wrench
- 4mm hex wrench
- T25 Torx wrench

The caliper and rotor for the front and rear of the bike are the same. The only difference between front and rear disc brake is which adapter should be used to mount the caliper to the bike. The adapter for the front fork is mounted with an "R" and is designed to fit Tektro internation standard disc brake mounts. The rear adapter is marked with an "O" and is designed to fit Tektro internation standard disc brake mounts. These adapters are integral part of Tektro disc brakes. They allow the user to select the disc brake caliper to be easily interchange.

Mounting the rotor to the hub (See 2a)

(1) Remove the wheel from the bike. Attach the rotor to the hub with the supplied bolts and tighten them to 28-36 lb ft (4-5 Nm).
(2) Install the wheel on the bike according to the manufacturer’s instructions.

NOTE: The rotor must be installed with the "rotation" arrows pointing in the same direction as the frontward rotation of the wheel.

Mounting the caliper (See 2b)

(1) Before installing the calipers, ensure each wheel side is correctly seated in the dropouts. (The brake rotor should be on the caliper mounting side)
(2) Select the correct adapter (front or rear) for the size of rotor. If your frame and/or fork utilize disc brake mounting spots you will need the included bolted mounting caliper brackets.
(3) Install the caliper, with the engraved "R" or "O" facing toward you (away from the rotor and wheel, position it behind the frame/ruiler mounting holes. Now engraved "R" or "O" should not be visible behind the bracket. Tighten the bolts to a final tightening torque of 4-5Nm.
(4) Make sure the pads are correctly positioned in the caliper. Attach the caliper to the caliper using the supplied Allen bolts. Do not tighten the bolts at this stage.
(5) With the caliper mounting bolts still loose, depress the brake pad. The caliper will correctly center itself to the rotor. Keeping the brake pad depressed, tighten the caliper mounting bolts. Final tightening torque: 4-5Nm.

Adjust Hose Angle (See 2c)

(1) Before tightening the caliper, ensure that the hose angle is correct to improve hose routing.
(2) A hole is sown on the brake caliper with MS Allen wrench and adjust hose angle for proper routing.
(3) Tighten the hose caliper with tightening torque 5-6Nm.
(4) This adjustment must cease into the hose. If the brake hose is not properly adjusted;
(5) Mounting the brake lever (See 2d)

(1) Install the brake lever onto the handlebar in proper position and the brake hose pointing towards the center of the handlebar.
(2) Install the brake lever in this desired position by tightening it with the 4mm Allen bolt. Final tightening torque: 4-5Nm.
(3) Once you have the lever assembly positioned properly, you can adjust the reach of the brake lever. From the 2mm Allen wrench to suit your preference. (See diagrams C100 & VDC01’s 4 reach adjustments)

CAUTION: Do not completely remove any of the bolts on the lever.

SECTION 3 REMOVING THE PARTS

The pads and rotor must be kept clean and free of all hydraulic fluid.

Removing the pads and rotors

[The Tektro hydraulic disc brake pads and pad connecting spring are held in place by a 3mm pin or brake pad retaining pin which can be released by using a 2mm Allen wrench. The brake pads can be replaced once the pin is removed.]

Removing the brake lever

(1) The Tektro hydraulic disc brake lever is held in place by a 3mm pin or brake pad retaining pin. To remove the brake lever, disconnect the spring, unscrew the retaining pin and remove the brake lever.
(2) Once the brake lever is removed, the pads can be replaced by reconnecting the brake pad connector spring.

Installing the brake pads

(1) Install the brake pads on an opposite side of the caliper so that the two braking surfaces are facing each other.
(2) Take care not to touch the braking surfaces, push the pads in the holder together and insert them into the caliper so that the protruding edge of the brake pad hole is aligned with the bolt hole on the caliper.
(3) When the retaining pin is tightened with a 3mm Allen wrench, the brake pad holder is fixed tightly to the brake pad. The brake pad holder is designed to be 3-5Nm.

NOTE: New pads require about 10-15 laps to achieve their optimum braking power.

WARNING: Tektro hydraulic disc brake offers considerably braking power, test your Tektro hydraulic disc brake gradient on a flat surface until you become accustomed to the braking power. If you lend your bike to another person, make sure they are also properly accustomed to the brake power before riding.

SECTION 4 BLEEDING THE SYSTEM

You should always bleed the system after you have shortened or replaced the hose or have opened the system to the air at any time. Additionally, if the brake action feels spongy, you may improve performance by re-bleeding the system.

Tools and Equipment Required

- 4mm Allen wrench
- 7mm brake fluid
- 6mm spanner
- 9mm Allen wrench
- A clean, empty bottle or plastic bag
- A 2cc syringe
- A cotton cleaning towel

CAUTION: Bleeding is a very important part of any maintenance of the Tektro hydraulic disc brake. If the pads or rotor become contaminated with oil or the hydraulic system becomes contaminated with impurities, braking performance will be greatly impaired. Use only Tektro brake fluid with the Tektro hydraulic disc brake. Other brake fluids may not be compatible and may damage the system.

Step by Step Guide (See 5a - de)

(1) With the brake correctly installed, place the bike in a stand or similar device to hold securely parallel to the floor.
(2) Rims attach a long plastic tube (supplied in the service kit) over the outlet valve, placing the other end into the syringe with liquid suitable volume.
(3) Using a 4mm Allen wrench, slightly loosen the brake lever’s bolt retaining bolt. Turn the brake lever so that the reservoir is parallel to the ground.
(4) Using a T25 Torx wrench remove the bolt that is on top of the reservoir tank.
(5) Place the outlet valve on the hole and firmly attach a long plastic tube over the outlet valve, placing the other end into a clean, dry empty bottle or plastic bag.
(6) Open the outlet valve on the caliper (right hand turn to 0.4Nm), brake fluid should now appear in the plastic tube connected to it. You may also notice air bubbles in the tube.
(7) Lift the brake and return to the normal condition of the syringe. The bubbles may come out from the outlet valve on the reservoir tank of the brake lever’s tank. Be sure to fill the oil in the syringe until the air is out of the outlet valve on the reservoir tank of the brake lever’s tank, so that no air gets into the system.
(8) Tighten the bleed valve. Final tightening torque should be 4-6Nm. Replace the rubber outlet valve cover.
(9) Depress the brake lever a few times. The action should be fast and not spongy.
(10) When no more air bubbles appear to be coming out of the outlet valve, remove the outlet valve from the bracket. Using a T25 Torx wrench tighten the bolt on this side reservoir tank. Final tightening torque: 0.4-0.6Nm.
(11) Wipe the lever, caliper, and base with a lint-free towel.

Warranty

Tektro mechanical disc brakes are warranty against manufacturing defects in material and workmanship for a period of one (1) year from the date of original purchase by the original owner, so long as the product is used only in accordance with the instructions contained in the owners manual or as otherwise specified by Tektro. This warranty does not apply to products damaged resulting from improper installation, adjustment or maintenance, failure to maintain or alter the products, or damage due to normal wear and tear. This warranty does not cover any damage caused by users or parts from other manufacturers.

For warranty related questions or more information on the Tektro brake, please contact a Tektro Service Center or contact us directly at:

http://www.tektro.com

December 2013

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