

## **Airhead Clutch Cable Replacement and Adjustment:**

There should be ONE tie wrap on the clutch cable, midway down the right-side frame down tube. This should be snug, not tight. Route the cable so that there are no severe bends, and you may need to loosen the motor mount nuts to fit the cable in below the pushrod tubes. Torque the nuts to 55 foot pounds afterward. If the old cable is the OEM part, it may be routed correctly, just follow the routing. It's easiest if you use some masking tape to attach the new cable to the old one and pull it through. Just handle the cable gently. They can be damaged by rough handling on installation. The cable should NEVER be lubricated, but it IS necessary to lube the barrels on each end annually. Also check that the hole in the hand lever is clean and free of dirt.

### **Do a complete, "from scratch" cable adjustment after replacement. To do this:**

- (1) Replace cable, both ends now disconnected.
- (2) Loosen locknut at transmission lever, slacken adjuster screw several turns out.
- (3) Insert top end of cable through adjuster, into the lever slot, pushing it WAY in to the lever. Slip the greased barrel up onto the cable, and pull the cable back to engage the barrel on the cable. Clean and examine all parts to see that the barrel only goes in one way.
- (4) If the cable is routed properly, and the top barrel seated correctly, you should be able to hook the barrel on the lower end into the forked clutch arm at the transmission.
- (5) The first adjustment is made with the large threaded adjuster at the top, lever end of the cable. You need to measure the cable dimension at the LOWER end, and make the adjustment at the TOP end. The dimension should be EXACTLY 201 mm from the rear face of the transmission where the cable comes through, to the near edge of the cable barrel. You may need to turn the top adjuster out quite a ways to obtain that dimension. Squeeze the clutch lever and remeasure, as that will seat everything. The easy way to measure the 201 mm is to cut a piece of coat hanger to the exact length and use it as a gauge. Put a piece of duct tape on the middle like a flag, write "BMW Clutch Adjustment 201mm" and you got a free BMW Special Tool.
- (6) The second adjustment is made at the rear of the transmission, using the adjuster screw and locknut on the clutch arm. Turn the adjuster bolt in until there is NO free play on the cable, determined by lightly pulling the lever with one finger and looking at the gap at the hand lever where the cable passes through. Once you have removed all free play, back out the adjuster just enough to give 2-4 mm free play at the hand lever. To hold the adjustment while securing the locknut, just pull and hold the clutch in with your left hand while snugging the locknut with your right hand.

Test ride the bike, and recheck the two dimensions after the bike cools off. You will note that the free play will change slightly when the bike heats up. Don't readjust when hot. If you have the cold play adjusted correctly, there will be adequate free play to accommodate the change when hot.

This works with all airheads after 1970. The factory first defined this procedure with the introduction of the 1981 models with the new clutch/transmission design, but the procedure was well known to BMW dealers for years before. I learned it in Service School in 1973.

Ride and enjoy. New cables feel nice.

Tom Cutter