

TDM900: Synchronizing the throttle bodies

First of all : except in case an obvious malfunction, there is no need to worry too much about synchronizing the throttle bodies on the TDM900 as they are less prone to de-synchronizing than carburetors - mine were still ok at 50,000 km.

Which way to go

The good old double clear hose comparator is very common on the internet, many diy pages to be found.



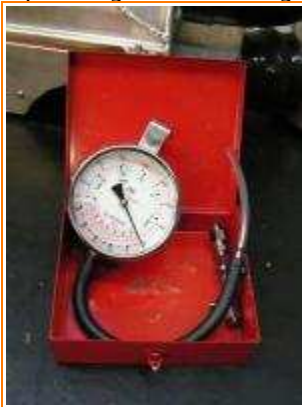
Although simple to implement this method is not satisfactory for the TDM900 :

- There is no absolute vacuum pressure control, it only compares the two vacuum pressures.
- The surge pulses at low revs make it difficult to adjust vacuum pressure or even impossible. Surge filters should be added to get rid of it (much like the air intake flap control).
- Some oil may flow into one cylinder. This is not good at all for the catalytic converter system and the O2 sensor.

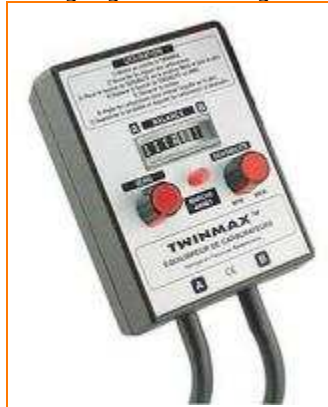
In other words : better leave this for oldies...

The best method is to use the right tools : they make tuning easier and accurate so the setting will be more reliable.

For my settings I used a single mechanical gauge with a surge damping.



Single input mechanical gauge



Double input gauge



Quad input gauge

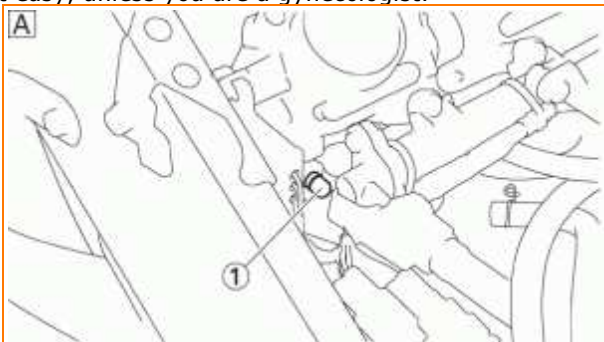
Setting the throttle bodies

Preliminary operations :

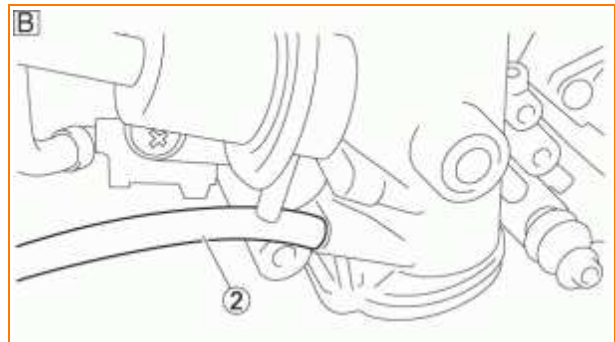
- Adjust the valve clearance.
- Adjust the idle speed (1100 to 1200 t / min).

• Setup

- Place the bike upright on a stable stand.
- Plug the hoses on the injector bodies. This requires removing the seat, the fuel tank and the air filter as access is not easy, unless you are a gynecologist.



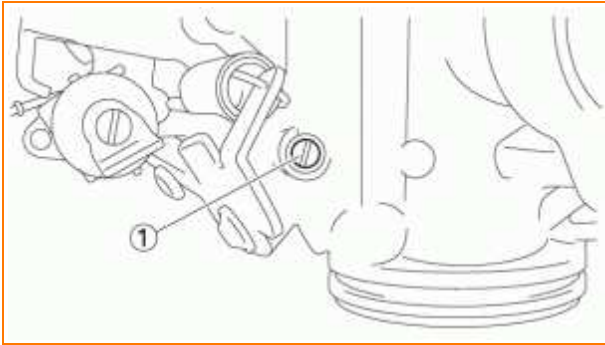
Hose, left hand side



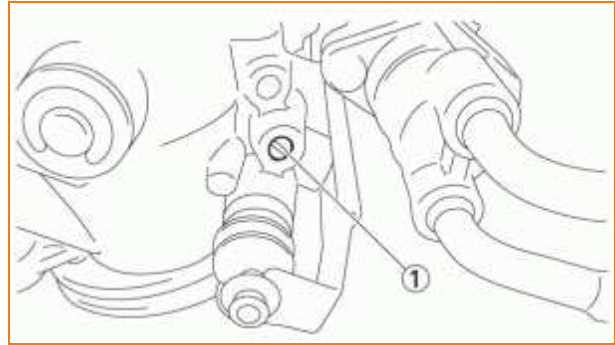
Hose, right hand side

• Vacuum pressure setting

- Connect the vacuum gauge on one hose, blank off the other one.
- Replace the air filter and the fuel tank.
- Warm up the engine for several minutes.
- Check the idle speed.
- Check the vacuum pressure : 33.0 ~ 36.0 kPa (248 ~ 270 mmHg).
- Turn the air screw (1) to adjust vacuum pressure - not to be confused with the screw located between the throttle bodies.



Air screw, left hand side



Air screw, right hand side

- Using the right screwdriver is vital to prevent a nervous breakdown.
- Rev the engine two or three times then check again.
- Switch to the other throttle body.
- The difference between the two throttle bodies should not exceed 1.33 kPa (10 mmHg)

Job's a carrot : quick and easy !

It's even easier if you have a double input vacuum gauge.

© JBX 2003-2013 - v10.0

For informative purpose only. Always refer to the manufacturer's documentation.