Background on why rocker geometry is important in TR2-6 engines.

Background: -

TR's 2-6 engines have conventional (for the period) overhead rocker shafts with pushrods operating the rocker arm from the camshaft, then transmitting the lift to the valves. It is important that the pad of the rocker operating on the top of the valve pushed the valve down from above the centre line of the rocker shaft, by the same amount as it does below the centre line. Think of this being like the pendulum of a grandfather clock where the pendulum swings the same amount to the left as it does to the right, with this concept tuned through 90°. The further away from the centre line the rocker goes, the less lift is imparted so having the rocker shaft too high or too low is bad news as less than ideal lift is created. Secondly the further away from the centre line the rocker pad is, as it has a wiping action, the valve stem will be pushed sideways creating excess valve guide wear. This is accepted in high lift race engines, but can be mitigated by proper rocker geometry.

Parts Concerned: -

Part Number

various All TR2-6 Rocker parts: Rockers, shaft, pedestals, push rods.

Why might we need to make changes to Rocker Geometry: -

It is fair and correct to assume that Triumph as a major engine producer would get the rocker geometry right. So why do we need to mess with this. Well, it is unlikely that if you are considering rocker geometry, that the engine is standard. That doesn't necessarily mean modified for performance, simply including hardened seats for unleaded use could change the relationship between the valves and the rockers.

Checking and making changes to Rocker Geometry: -

In an ideal world you would need a Dial Test Indicator (DTI), and if not a scribing block but you can mange just as well with an engineers' rule and Square.

1. Set the valve clearances correctly. If you can't do this as the push rods are too long, put washers of known thickness under the pedestals so that you can set the valve clearances.
2. Using the top face of the head as a reference, identify, with the rule and square, the height of the centre line of the rocker shaft.
3. With the valve at its highest in the head measure the hight of the top of the valve stem to the reference face.
4. Repeat 3. With the valve at full lift.
5. Subtract 4. from 3. and half it. Add this to 4. And compare with 2. With the thickness of the washers removed from the equation, the two figures should be the same. If not, add shims (very unusual) or have the pedestals machined down by the requisite amount.
6. After getting the geometry right, your push rods may not fit, if they don't, we can supply shorter ones.

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