

Royal Enfield Bullet Front brake service 101

Here is a write up on servicing the Indian TLS drum brake that is fitted to recent Bullet motorcycles. Depending on your use of your motorcycle I would advise on servicing the brakes each year, on a scrambler more frequent servicing may be necessary.

Safety First!

Brakes are vital, if you have any doubts in your ability to service your motorcycle then please take your machine to a qualified dealer. Brakes are a safety item and great care needs to be taken to ensure they operate properly and reliably.

A number of the materials used in servicing the brakes are hazardous to your health so correct health and safety precautions need to be taken. The original Indian brake linings contain asbestos and brake cleaner must not come into contact with your skin. Work in a well ventilated area and wear a face mask. Safe brake linings that are asbestos free can be purchased from Hitchcock motorcycles, they are a slightly softer compound and so bed in a bit quicker for better stopping power.

You may notice a slight difference between the front brake linkages on my particular Bullet scrambler to the standard Indian item (part number 28 on the diagram). The link rod has been discarded and a M6 stainless studding rod has replaced it. This item is stronger, does not corrode like the original and also allows separate simple adjustment of each leading shoe independently of the other. This makes a useful and low cost improvement to the front brake.

First remove the road wheel.



The front brake back plate is held in place with just one central nut.



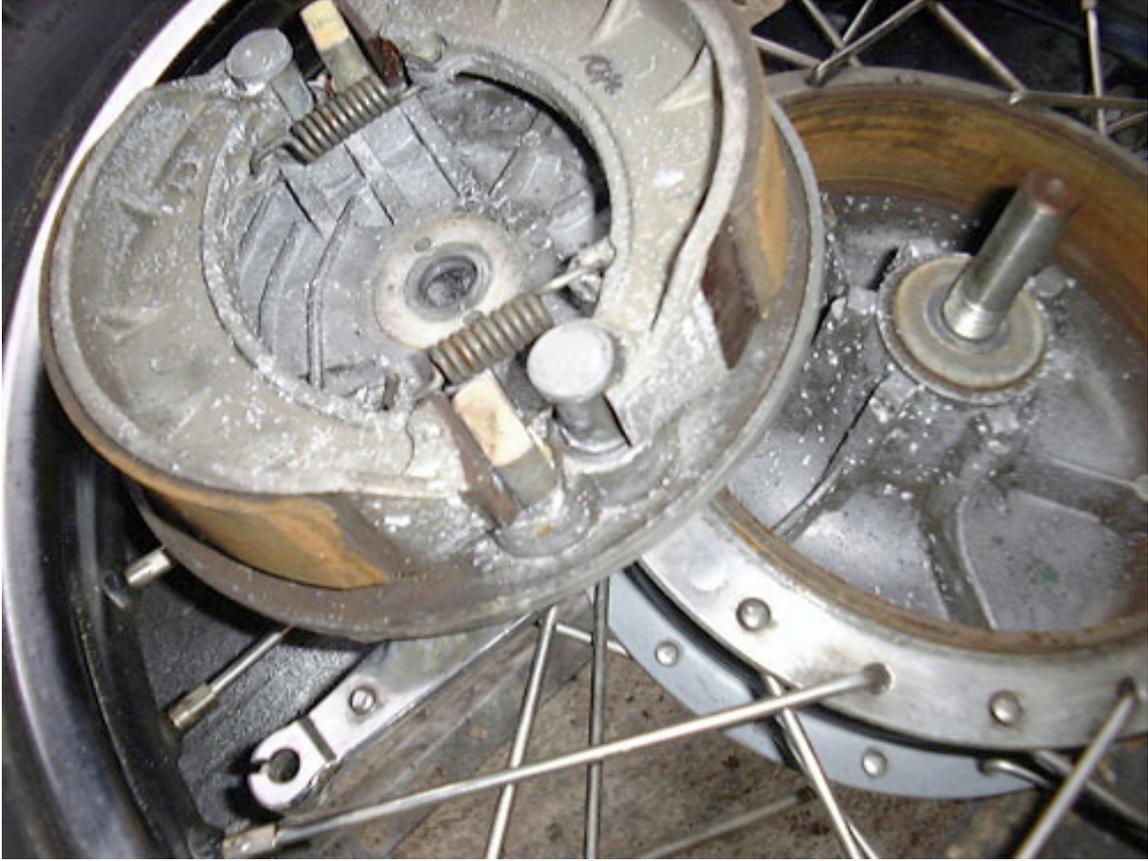
Remove central nut and pull out brake assy.



Inside you can see the damage caused by winter riding the Bullet plus trail riding the scrambler. Even after hosing the bike down after each ride, salty water is trapped in the brake drum and causes rapid corrosion.



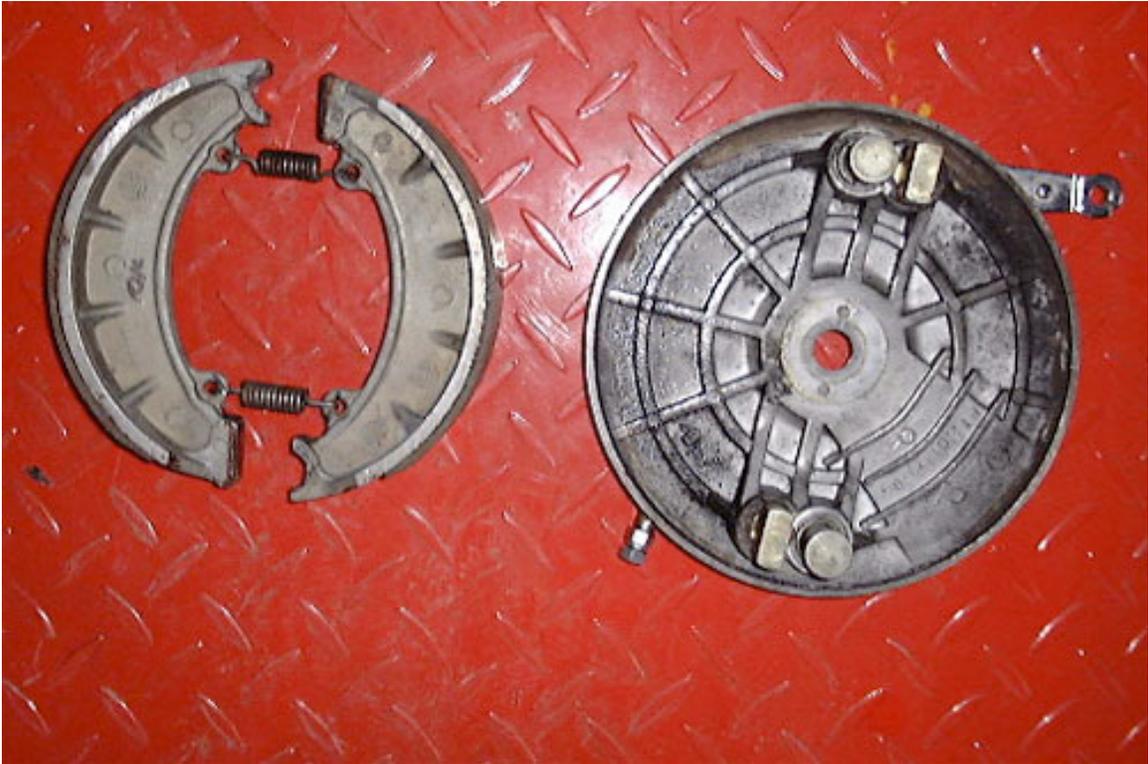
Red rust and white alloy salt damage had rendered the brake unreliable and ineffective.



First thing to do is to wear vinyl or latex gloves and wash the brakes with brake cleaner and a wire brush to remove any glaze. Don't breathe any dust in, wet the brake with the brake cleaner to stop dust.



You will need to take the brake shoes off the back plate to clean it thoroughly. This is a good time to replace the shoes with asbestos free items.



The front hub needs cleaning with wire wool and brake cleaner.



Much better now its cleaned up!



These are all the component parts to the front drum brake laid out and cleaned. When you reassemble the brake use a tiny amount of copper ease or high melting point grease on the pivot points.



Only a very small amount of grease is needed on the pivot points. The last thing you need is grease on the brake shoes! Not a good idea 😞



Here the brake is reassembled and fitted back on the motorcycle. Loctite thread lock is useful on all the securing nuts.



This is the final finished item with front fender. The brake has been adjusted up. First start with the lower brake shoe and adjust that. You are after a 90 degree angle between the cable and the lower operating lever. To get this you will need to move the lower lever to different points on its locating teeth until you find a good point where when the brake is adjusted it gives that **90 degree angle**. This is very important because this provides the **maximum mechanical advantage** for the riders hand lever. Once happy with this you need to adjust the top brake drum lever and adjust its leading shoe. The standard hexagonal linkage (item 28 on the drawing) between the two leading shoes makes it very difficult to adjust the brake correctly hence why I replaced it with M6 stainless studding. The standard item has a left and right thread on different ends. Due to the poor quality they tend to rust up quickly in winter.



Check your work carefully before using the motorcycle on the road. 😊

