

# Bobcat Trail maintenance

Philip Withnall

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## Abstract

This is a brief, incomplete guide to maintenance of the 2008<sup>1</sup> or 2009<sup>2</sup> Marin Bobcat Trail mountain bike. This is written from personal experience of overhauling the bike, with input from component manuals where helpful. I can't guarantee its correctness, and it isn't a substitute for your own fine judgement as to the right way to overhaul components in different states of disrepair. Any comments or suggestions are welcome at philip@tecnocode.co.uk.

## 1 Brake arms

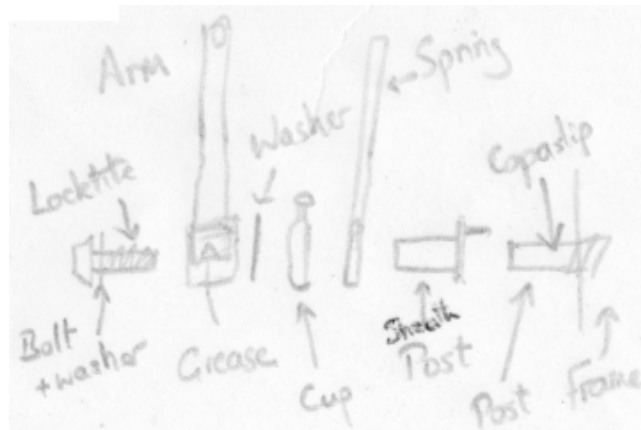


Figure 1: Explosion of a brake arm, showing bearing assembly and lubrication. All four brake arms are identical in this respect.

The arms (part number: TX-102) are numbered 1–4, with 1 and 2 at the front, and 3 and 4 at the back. The flat plate which the brake pads bolt to must be on the inside of the brake arm.

When removing the main bolt for a brake arm (Figure 1), it's possible that the bolt will stick to the mounting post and the mounting post itself will begin to unscrew. If this happens, grip the sheath post with some thin gas pliers to stop it rotating as the post is removed (though still allow it to move outwards from the frame with the rest of the assembly). This prevents the brake's tensioning peg from being bent or snapped.

<sup>1</sup><http://www.marin.co.uk/2008/bikedetail.php?ModNo=3844>

<sup>2</sup><http://www.marin.co.uk/2009/bikedetail.php?ModNo=3943-1F>

## 2 Cassette

The bike uses an 8-speed Shimano-compatible cassette with 11 teeth on the small sprocket and 30 on the large (11–30).

## 3 Chain rings/Crank set

The bike uses a 3-ring 22–42 chain ring set with 104 PCD spider and 175 mm crank arms.

The crank set uses a standard square peg bottom bracket, but the arrangement of the chain rings is unconventional. The small chain ring is mounted to the middle chain ring, rather than to the crank, which makes the whole assembly narrower than, for example, a Shimano Alivio crank set. For this reason, the chain rings must be replaced with identical ones unless the bottom bracket is also replaced.

## 4 Chain

I don't know how many links are on the original chain, but after installing a 48-tooth chain ring and replacing my chain with an SRAM PowerLink 8-speed PC870, my new chain has 112 links (having removed 2 [one outer, one inner] from the new chain). This is a little loose, but I think 110 would be too tight.

Removing the links from the new chain can be accomplished by sitting the chain on a vise and punching out the pin with a hammer and punch (if you don't have a chain tool).

## 5 Headset

The headset is a WTB Momentum Comp ST threadless headset<sup>3</sup>. Removing it may be tricky, as the top bearing can lock up due to over-compression. Using two knife blades between the top nut and top cup, and hitting the top of the head post with a hammer until the (nylon) compression ring loosens works to remove the headset without damage. Ideally, the whole assembly is held together by the handlebars, and should fall apart when they're removed.

It's worth noting that the diagram from WTB doesn't show the orientation of the ball cages. The flat sides of both ball cages should be in contact with the dust seals, i.e. facing outwards from the centre of the head post.

## 6 Rear hub

The rear hub (Figure 2) is a custom assembly manufactured by Marin (to the best of my knowledge; it has no identifying marks of any kind). It is very similar in design to standard Shimano rear hubs, except it uses two different sizes of ball bearing for no apparent reason. The drive side (where the cassette is mounted) has 9 6.3 mm (i.e. 0.25 in) ball bearings, and the left side has 10 5.6 mm ball bearings. These give effectively the

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<sup>3</sup>Schematic: [http://www.wtb.com/pdf/schematics/WTB\\_Momentum\\_Comp\\_ST\\_Headset.pdf](http://www.wtb.com/pdf/schematics/WTB_Momentum_Comp_ST_Headset.pdf)

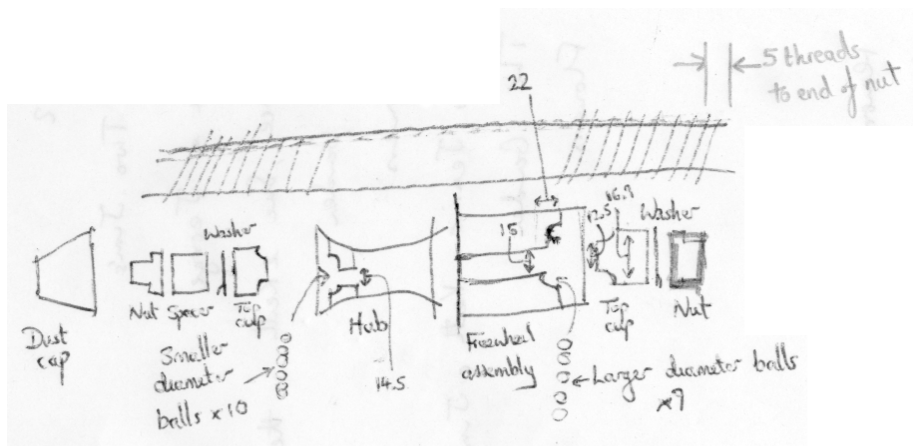


Figure 2: Explosion of the rear hub, with the drive side on the right.

same diameter ball races, but the larger ball bearings have a greater load bearing ability.

When reassembling the rear hub, ensure the balls are bedded right down into the cups, as there is enough room in the assembly for them to work themselves out of the bearing and up beside the top cone otherwise. Obviously, this seizes the hub up and damages the components.

## 7 Brake and gear cabling

The brake and gear cable lengths are given on the accompanying diagram, Figure 3.

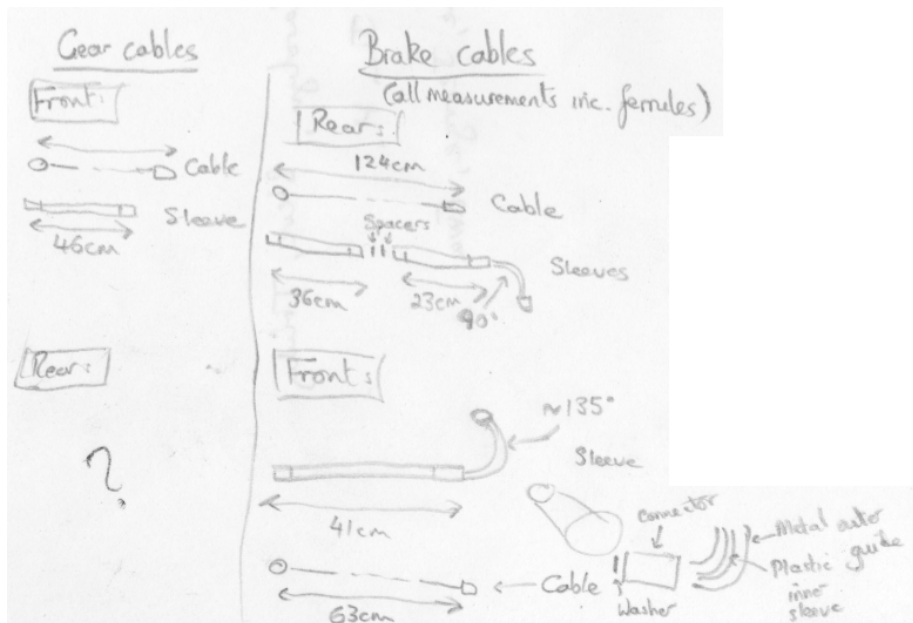


Figure 3: Gear and brake cable and sheath lengths.