

Thinking Outside the Square (front suspension) - Todd Hamilton

This is my effort to improve the heavy steering on my plus four Morgan. Some other Morgan owners including the factory are now fitting a roller or ball race to the bottom of the main suspension spring in place of the bronze plate of which creates a fair amount of friction.

The big problem with this is how to lubricate the bearing, keep the dust and water out and the grease in. So on with the thinking cap! Why not put the bearing on top of the spring much further away from the elements as you can see from my photos? I believe in engineering circles, this is called thinking outside the square.

At the bottom of the main spring I machined a top hat type section to locate and to sit the spring on in place of the bronze plate. This does not move so no lubrication required here. At the top I also machined a cup section to hold the roller bearing, also centre and locate the spring. Two grease nipples are in place to supply a small amount of grease that will be needed.

With the original bronze plate and the damper blades completely discarded I set out on a test run to Wisemans Ferry (our club run). I noticed a marked improvement in the steering, however slightly more road shock felt through the steering wheel. A VW Passat steering damper should take care of this.

If you have five or ten minutes to spare sometime ask me how it works!

Todd Hamilton



Fabricated components



New components installed on top of spring



Fully assembled