

Curing Early K100 Vibration Problems

By: [Don Eilenberger](#)

As a new owner of an 85 K100RS, what did you do to cure the vibes?

Lots - I'll list them more or less in descending order of effectiveness:

- 1.Bashed heat shield on muffler so it doesn't pinch between exhaust and left foot peg mount. Result - no (NO!) vibrations noticeable in left foot peg.
- 2.Refitted right side crash bar so it doesn't rub against the fairing ... a few washers under one of the mounts did it. MAJOR reduction in fairing noise and vibration. This one I blame on the dealer since they installed the bars.
- 3.Retimed bike to 30 degrees full advance (had been set at 24) ... major reduction overall in vibration. See [IBMWWR tech pages](#) for how-to-do (Lentini method - which I slightly modified - measure ANGLE instead of circumference ... you'll understand when you read it).
- 4.Use premium gas - some better than others - generally best on Sunoco Ultra, OK on Mobil premium ... this can be noticed right away. Later models may be able to use regular gas - the '85 cannot and stay happy. I can frequently feel an immediate difference when changing brands of Premium gasoline. Experiment and find which one your K likes.
- 5.Went through RT fairing adding rubber wherever I saw rubbing occurring ... it's pretty obvious where it occurs 'cause the paint between parts is worn, or you'll see shiny spots. Requires disassembly, but basically easy to do.
- 6.Replaced the O rings on the bar-end weights - these wear out and dry up. Install the weights so the ends don't quite touch the end of the bars (they have to be free to vibrate - which absorbs bar vibes ...) Helped a bit - not a major factor.
- 7.Retorqued all engine mounts - had been done by a butcher (air-wrench prolly) - to specs shown in book for 1985 - which are done in a diff sequence than later models. We're starting to get to where things are subtle - but still noticeable. Also - check to see if any shims are missing - loosen one mount at a time - if the frame moves away from the engine - you need a shim there. I made several from some thin flat stock. Made some difference at some peak vibration periods - but again, not a MAJOR difference (we are working our way in descending order of effectiveness).
- 8.Replaced rubber mounts for handlebars - minor effect.
- 9.Foam grips (not so good if you have heated grips) ... minor improvement, if any, but I like the larger grip.
- 10.Get ridda the stock seat. Like sitting on a cinderblock. Get a Russell made. If you need a seat to borrow while Russell makes your seat - lemme know. I have a loaner (and 1985 is different than other years).
- 11.Played around with some rubber under the tank ... was able to reduce vibration

in the tank where my knees touched it - also added the rubber pads to the sides of the tank - good for vibes plus insulates your knees from the heat from the tank (and it DO get hot in the summer).

And lots of little things ... chase any source of vibration - like anything that CAN vibrate and damp it (I have self-adhesive thin rubber foam tape - about 2" wide - works great for this)..

Make certain the BMW upgrades were performed on your bike. At Fontana, I actually saw an '85 K100 which still had the original footpeg mounts.

Plus it prolly helped when I:

1. Rebuilt the intake - replaced all the rubber - (throttles to air-box, throttles to head) - had leaks - causes rough running - causes vibrations.
2. Replaced the rear-main seal, which didn't really NEED it, but the O-ring in front of it did - on retorquing the nut on the clutch basket (you first tighten it to XXX FT/LBS, loosen it, then retighten to somewhat less FT/LBS) much of the engine rattle on de-cel (common on K's) went away ... suspect it took up some play in the secondary shaft that had developed from wear.

The two above - you can PLAN to do ... your bike is old enough, and both are caused by the aging and drying up of rubber parts..

The results of all this are - it has less vibration in it than later models of the K100 that I've ridden - and about the same or less than the K11 ... also - if you still have a remnant of vibes in the bars ... some people have suggested putting lead shot into them - I bought gel palmed gloves (Olympia Model 400) - with these on - there is NO vibration reaching my hands AT ALL ... they work great.

Also - a FWIW. I added a throttle-lock-screw (standard BMW issue). Before installing the screw I found I got real pain in my right hand and wrist. I suspect the pain was caused by gripping the throttle grip tightly enough to keep it open all the time. Adding the screw, and adjusting it to a neutral adjustment (throttle stays where it is set, but is easily returnable to closed) cured this pain instantly. Have not had any wrist pain or numbness - even after 12 hours of riding.

I also like the throttle lock because it helps me ride the bike smoothly. The throttle on a K is very sensitive to on/off transitions. Loaned one to a fellow club member who has a K100RS - haven't been able to get it back yet!