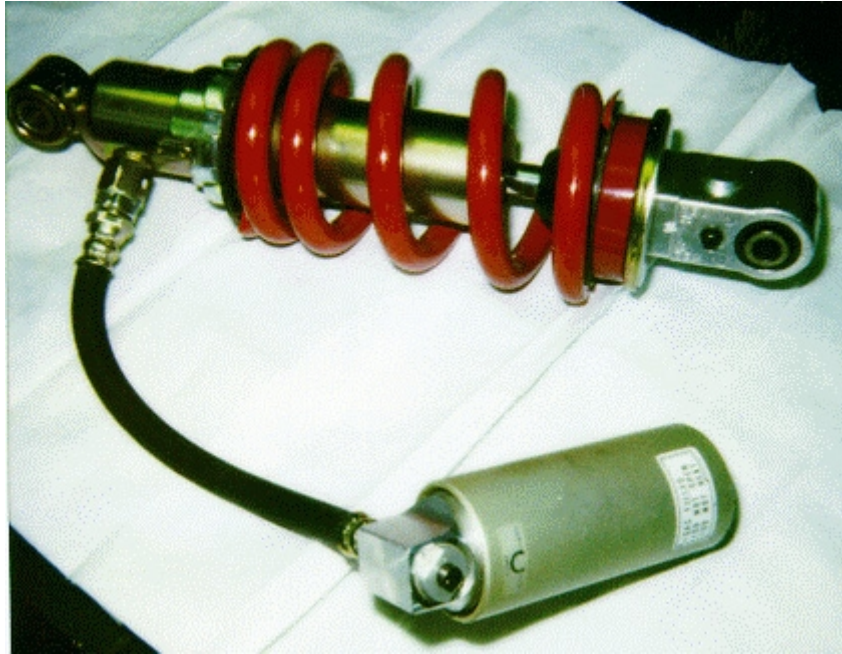


CBR900RR('96) SHOCK to HAWK GT INSTALLATION



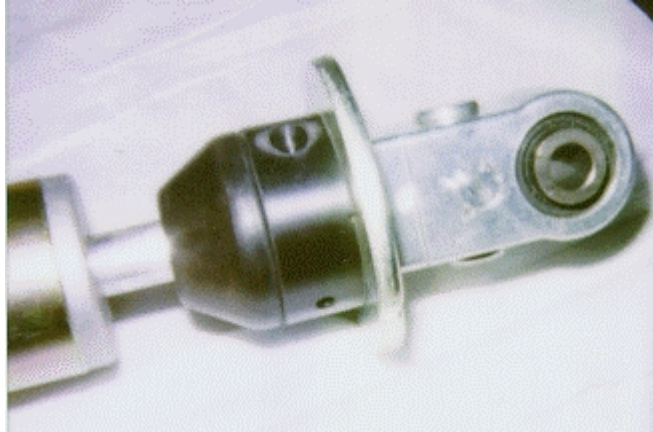
assembled, modified shock, ready to go !

SHOCK COMPARISON:

	Hawk	'96RR
Overall Length (center-eye to eye)	307mm	307mm
Travel (to rubber snubber)	16mm	35mm
Spring Length: Free Length	154mm	175mm
Mounted (softest setting)	145mm	163mm
Mounted (Hardest setting)	134mm	154mm
Spring Preload settings (travel)	7 (10mm)	7 (10mm)
Spring I.D: Large End	61mm	57mm
Small End	58mm	52mm
Mounting Eye Width: Top	0.962"	1.114"
Bottom	1.537"	1.535"
Force Required to Compress Shock 10mm (without spring & at softest C/R settings on 900RR shock)	38lb.	44lb.
Spring Rate (based on measurements taken using bathroom scale -up to 300lb.)	40lb/mm	30lb/mm



close up of spacer and travel limiter



close up of travel limiter on shock

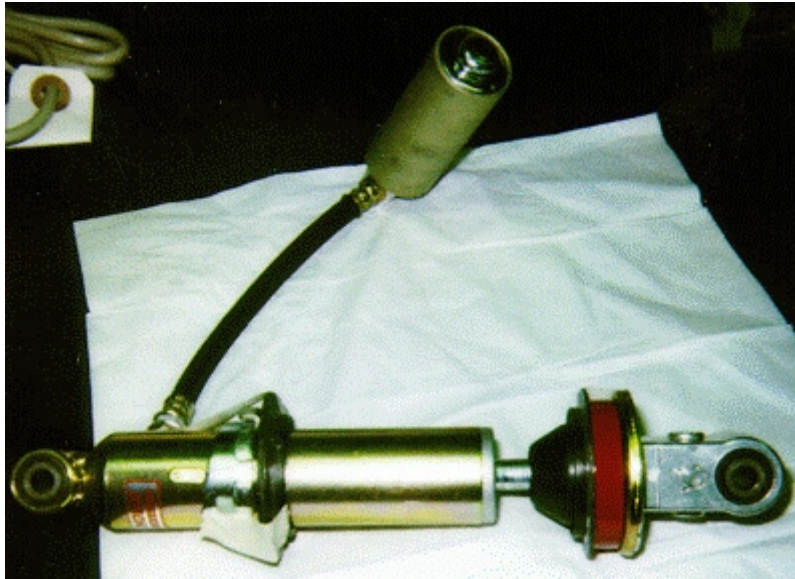
MODIFICATIONS REQUIRED:

Top mounting eye of the 900RR shock must be enlarged to 12mm and mounting eye narrowed or frame widened. Top hole can be offset milled approximately 0.025" to increase rear ride height if desired.

Spring spacer required to use Hawk spring on 900RR shock, used in combination with Hawk and RR spring seats (on both ends of spring): 2.25" I.D./2.75" O.D. x 0.525" tall.

Travel limiter: A split bushing is required, because end of RR shock cannot be removed without discharging shock. It is mounted between the RR spring retainer plates and the rubber snubber. The thickness works out to be 0.730" (between the snubber and the spring retainer plates). One end must be counterbored about 0.130" deep x 1.0" diameter to clear the locking nut against the shock end and allow the spacer to sit flat against the retaining plates. The inner through hole is 14mm, which is snugged down against the shock shaft by gradually sanding the spacer halves against a flat plate and checking the fit until it's tight. I made the spacer 1.8" outside diameter with a 0.125" high x 1.0" diameter boss opposite the counter bored side. This engages the counterbore in the rubber snubber. This design provides full support of the snubber.

(Update) I've come across a suitable substitute for a custom made split bushing, available off the shelf from McMaster-Carr Co. It's 0.5" bore (which will need to be enlarged to 14mm), 1.375" OD x 0.562" tall. Made of nylon, it runs about \$9.00 (PN: 60485K65). You'll need to find a suitable rubber washer (maybe a faucet washer?), approx. 1/8" thick x 1" OD to fit/(super)glue into the counterbore in the RR rubber snubber, this should provide adequate support there. No other mods should be done to the collar, just bolt it on as described above, against the locking nut at the end of the shock. McMaster's phone #: (908) 329-3200.



shock assembled with mod. parts/no spring

To add a few more details:

I used both the Hawk and RR spring seats. The Hawk spring is a little larger in I.D. than the RR spring, so I located the Hawk seats against the Hawk spring. These fit nicely into the RR spring seats (with the spacer on the appropriate end), which fit the RR shock better. You can adjust the preload spacer length somewhat to fit your own tension preferences, but may be limited by how far the spring seats will fit into each other - this is kind of hard to explain but easy to understand with parts in hand. I actually made my spacer 0.485" tall and the overall assembled combination of shock/spring/seats/spacer came out about 1mm shorter than the original Hawk assembled spring length - therefore I've recommended the 0.525" spacer height to maintain the original spring preload specifications. Despite measuring the spring rates with a bathroom scale and makeshift contraption on my drill press, they're pretty close to information others have gathered on the list. I offset milled the top hole in the shock about 0.025" to raise the rear a little, and widened the frame with a die grinder and file the required amount. You'll need to remove the "stuff" above the upper frame shock mount to get access but put the long bolt (8 or 10mm?) back in and tighten a little (when measuring and marking it) as the frame will open up a little with it removed and will affect the shock mount width. I guess you could always modify/narrow the shock instead of the frame but don't know if that would weaken the rubber or whatever in the shock eye.

Let me know if you have any questions, I'll be glad to help you out with any additional info./comments/observations/(opinions?) I have.