

# TECH TIPS

David Stein Writes to a Member With Some Helpful Hints on the Maintenance of a 750 Super Sport.

Dear Matt: Joel Eliel of the Dioc wrote me and enclosed your letter, with a request that I answer some of your questions. My qualifications consist of 13 years of motorcycle experience (Matchless, Triumph, Suzuki, BSA, Harley Davidson, and assorted friends motorcycles, plus a Ducati 750 Sport and my present love, a Ducati 750 Super Sport), and the tremendous trouble I have had getting parts and information about the last. I congratulate you on your good taste in bikes; BUT you will be forced to back up your good taste with \$\$\$, fortitude, perseverance, mechanical skill, and some luck.

First: There were three 750 Ducati Models produced;

750 GT: 30mm carbs, 8.5:1 pistons, single front disc, rear drum, high bars, dual seat, normal pegs.

750 Sport: 32mm carbs, 9.5:1 pistons, slightly tougher crank and rods, single front disc, rear drum, clip-ons, road race seat and tank, rear sets.

750SS 40mm carbs, 9.5:1 pistons, super heavy duty crank and rods, dual front discs, rear disc, clip ons, road race seat and huge tank, rear sets, half fairing; also known as "Desmo", because of the desmodromic valve system.

There is only one 750 Duke in current production, the desmo; however, it is based on the "square case" 860, and is now being imported into the USA upped to 864ccs called the 900SS Desmo.

To be honest, I wonder whether you got a desmo; you can check the characters given above, and also look on the left side rear engine bracket; it should be stamped DM 750 SS with the frame # next to it. How come you didn't get clip ons, half fairing and brackets, etc.?

Second: Sorry, but there is no shop or repair manual for "old style" (round case) 750s; never has been. I know because I have a letter from the factory saying so. In fact there was never an owners manual for the S or SS. I have an owners manual for the new 860 Desmo (900SS) which has a different engine but the same frame and general running gear as the 750's like mine and yours. I will send you a xerox copy if you send me the \$2.00 it will cost. There are also parts books for the 750 which cover GT and Sport only. SS parts are not listed, and must be ordered by description only, (they actually only include crank assembly, rods, heads, opening and closing valve rockers, valves, cams, fairing and associated brackets, swing arm, and intake manifolds). There is a "picturebook" engine manual which is damn near useless but which shows what the inside of a GT engine looks like - it costs \$10.00 and that's if you can get one. I bought the only one I ever saw for sale.

Third: Adjusting the valves (the first time) is a frightening experience; however, here's what you need:

1. appropriate opening and closing valve caps and collars
2. Valve rocker shaft puller
3. thin piece of steel wire
4. tweezers
5. feeler gauges

and here's what you do with it: (this is short)

1. Remove valve cover
2. measure valve clearances with feeler gauges - opener: .005"; exhaust opener: .006"; closers: .000" The closers should be rotatable by hand at their tightest, but with NO SLOP. There should be no rocker side play.
3. Remove cam bearing cap (left side), rotate 90 degrees and reinstall (spark plug will, naturally, be removed)
4. Pull opening rocker spindle BUT use the wire and the tweezers to carefully remove the shims at each end of the rocker.
5. Keep the shims, spindle, and rocker together, in the same order in which they were removed.
6. Replace collar with thicker (or thinner) one, replace cap as appropriate. NOTE: if the closing collar is, (was)

loose, you must hold the valve up manually to get a good opening clearance measure.

7. Put everything back together and proceed to do all the valves.

BIG PROBLEM: it is possible, when the closing collars are removed, for the valve (s) to fall into the cylinders. There are three ways to beat this:

1. remove the engine from the bike, and the heads from the engine, set valves, and reassemble.
2. weld a compressed air attachment on a gutted spark plug, screw it into the plug hole, and pressurize the cylinder, which will keep the valves closed.
3. I have found that if they are firmly shut, the valves tend to stick closed a little. If you are careful, you can remove the collar and put a spring type clothespin on the valve stem. That is what I do; and I pray very hard while I am setting closers.....

I will help you all I can, short of visiting you. I suggest becoming best friends with your nearest Ducati dealer; But don't let him touch your bike; few people are capable of doing a desmo tune up right. Once you know how, you will do it right every time (if you don't, or can't, you shouldn't own a desmo).

If you can afford long distance phone calls, and you have trouble or questions, call me (503-752-7435) or Cook Neilson at Cycle magazine; he won't answer letters, because he's too busy; but he will talk and tell you what he, Schilling, and Jennings know (all of them have Ducatis; the first two, at least, have desmos). Obviously, I can't write a manual in each letter; for one thing, I've never split the cases on either of my Dukies, so I am not much use there.

I would like to hear from you; especially because I want to know if you really have a Desmo, and if so, what it cost... I bought mine new, in July 75, for \$3500, and have never regretted it. If you take good care of it (change the oil every 1000 miles, set valves every 2000, points and timing every 2000, you will be the happy owner of a real motorcycle which I believe is the finest of its kind ever made.

PS send your \$850 to the DIOC- it has been worth it to you already. D. STEIN 519 NW 14 St., Corvallis, Oregon 97330

## SOME GOOD NEWS FROM S & R ENTERPRISES

Dear Joel: Since I wrote you the letter which you printed in #2 issue, I have been swamped with letters asking for details on our cylinder head modifications. So far I have been able to answer each one but it's been taking an hour a day. So, if you would like a tech article on flow bench testing with specifics on Ducati heads let me know and give me a deadline for the next issue and I will try to meet it.

**WARNING! ALL OWNERS OF DUCATI TWINS SHOULD IMMEDIATELY REMOVE THEIR CLUTCH AND CLUTCH HUB NUT RESET THE LOCK WASHER AND LOCKTITE THE NUT ON TORQUING TO AT LEAST 60 FOOT POUNDS. 80% OF THE TWINS WE HAVE WORKED ON HAVE HAD THE CLUTCH FALLING OFF! THE BEGINNING SYMPTOM IS A WHIRRING CHATTER WHEN TAKING OFF FROM A STOP THEN THE CLUTCH CABLE SLACK INCREASES, THEN THE CLUTCH FALLS OFF AND BOY WHAT A MESS THAT MAKES. s&r enterprises, 2273 American Ave. No. 10 Hayward California 94545 Harold Parks, Pres. ■**

Dear Harold: Thank you for the 860 tip and for the offer to write technical articles for the club. I am sure that the great majority of our members could greatly benefit from your knowledge and understanding of Ducatis. We really don't have any deadline at the present time, so whenever you get your article in that's when it's due. Right now we are playing everything by ear as we go along. Thanks again Joel Eliel for the club.

## LAST MINUTE NOTES LAST MINUTE NOTES LAST MINUTE NOTES

MEMBERSHIP DUES HAVE BEEN CHANGED FOR FOREIGN MEMBERS. THEY WILL BE \$10.50. THIS IS DUE TO THE HIGH COST OF MAILING OVERSEAS. IF OVERSEAS MEMBERS WOULD LIKE TO ORDER T SHIRTS PLEASE ADD A FEW MORE \$\$ TO COVER THE AIR-MAIL SHIPPING.

DUES FOR THE CONTINENTAL USA AND CANADA WILL REMAIN AT \$8.50. \*THERE ARE NO MORE COPIES OF THE FIRST DIOC NEWSLETTER LEFT. IF ANYONE WOULD LIKE REPRINT SOME COPIES FOR THEIR FELLOW MEMBERS FOR A SMALL FEE, PLEASE DO SO. WE DON'T HAVE THE FUNDS OR THE TIME TO MAKE A NEW BATCH AT THIS TIME. \*WE ARE ALSO OUT OF MOTOR CYCLE, THE ENGLISH PAPER WITH THE DUKE ARTICLES. IF WE SHOULD GET A HOLD OF SOME MORE COPIES OF THE JULY 76 ISSUE WE'LL LET ALL KNOW IN THE CLASSIFIEDS. THOSE MEMBERS IN ENGLAND WHO WOULD LIKE TO DONATE SOME COPIES TO THE DIOC, PLEASE SEND IT TO OUR LAST PAGE ADDRESS WITH OUR GREATEST THANKS.