

SUZUKI CAVALCADE OWNERS GROUP NEWSLETTER

March, 2006

~ O ~

NEW THIS ISSUE:

At the end of this issue is a new section...
a list of those who have parts bikes with available parts for sale.

RIDES AND EVENTS:

MID-TENNESSEE CADE RAID

This year's event will be held on April 14, 15,16th. We will be based in Cookeville, TN. The web site dedicated to this event is: <http://www.uppercumberlandscrc.org/midtncade.html>

Look forward to all who want to participate. ~"BigDaddy" Rick Moore, 86'Cav LXE Email: bigdaddy_ent@yahoo.com

20th Anniversary National Cavalcade Rally

“CADE RAID 2006”

September 11-15, 2006 ~ Golden, Colorado

Most of our Cavalcades officially turn 20 years old this year. To celebrate, we are hosting a gathering of Cades and Cade owners in the Rocky Mountain resort town of Golden, Colorado. We have a full schedule of events all week. There will be workshop classes by the best Cavalcade mechanics in the world. You will learn to repair, maintain and enhance your Cavalcade from these experts. There will be special activities for spouses & passengers too. We'll feature daily rides through the majestic Rocky Mountains. We will have an Advanced Rider Training Course to improve our skills riding heavy motorcycles. We've scheduled evening meals and entertainment. Wednesday we'll have a western barbecue and "Evening with Wild Bill Hickok". Our Friday Night Cade Raid Dinner will feature our own Cavalcade Prime-Time Entertainers, including Jay, Tracy, Nancy "Motherwind" and others.

Email jay@treefarmtapes.com for a registration form to attend Cade Raid 2006. Reserve the week of September 11-15, 2006 at the Holiday Inn in Golden, Colorado. When you call the for reservations, (303-279-7611) be sure to identify yourself as with the Suzuki Cavalcade Owners attending "Cade Raid 2006" to receive our special room rate of \$70 per night.

CADE RAID 2006 ACTIVITIES

The schedule of events for our Cavalcade rally next September is complete. Here is part what we have planned for our big 20th anniversary celebration.

Monday through Friday Daytimes ~ Daily Classes, Rides and a Safety Training Course designed for Cavalcade riders. We'll also have special activities for spouses and passengers planned by Nancy Dilldine and Cathi Hughes for all the ladies attending. The Cavalcade Store will be open where you can buy and sell items and parts for your Cavalcades. Improve and update your Cavalcade with hands-on instruction by knowledgeable Cavalcade mechanics including Tracy Presnell.

Monday Evening ~ Dessert Bar-Welcome to Colorado! ~ We are going to have an evening get-together to allow everyone to mingle and get to know each other. I'm still working with the hotel to plan this event. I'll have the details soon, but for now let's just say it's going to be informal, fun and not particularly low calorie.

Wednesday Evening ~ Dinner & a Show... We are planning a dinner at the hotel followed by an evening with an authentic western cowboy legend, Wild Bill Hickok, in person. Actually in the person of a descendant of Wild Bill who portrays his famous ancestor scout, gambler and lawman. This remarkable re-enactment will bring alive the history of the old west.

Friday Evening ~ The Cade Raid Dinner ~ The chef at the Holiday Inn in Golden, CO is planning an outstanding meal. Plus, the usual Cade Raid performers; Jay, Tracy, Spike and Motherwind will entertain you with all new performances for 2006. Plus, we will have some new entertainment from the ranks of the Cavalcade owners. We will also present some awards and prizes. This is our traditional finale to wrap up a week of Cade Raid. It's our one last group gathering before that long ride home.

For your registration form, email jay@treefarmtapes.com Registration is \$65 for bike and rider, \$45 for a passenger. This includes all activities except the Wednesday and Friday dinners and the Rider's Training Course. Your registration also includes an event tee-shirt and pin. You can reserve your guest room by calling Holiday Inn-Denver West (303-279-7611). We have a special group rate of just \$70 per night. Be sure to identify yourself as attending the Suzuki Cavalcade Group's Cade Raid 2006. Be sure to reserve the week of September 11-15, 2006 for our Cavalcade Rally at Golden, Colorado. It's our 20-year celebration event!

BRITISH COLUMBIA CADE RAID ~ July 8th Weekend

The July 8th & 9th weekend at Osoyoos, BC; that is the date and location for our BC Cade Raid. This is a resort town with many motels and good restaurants. There are scenic motorcycle roads there and it's always sunny in July. We'll probably visit a hot springs so bring your bathing suit. Come for the weekend or a day-ride. There is no fee to attend. We will have daytime rides and evenings to socialize and compare bikes.

Many hotels, resorts and motels in the Okanogan Valley are already booked up through July and August, Osoyoos is particularly busy. Even the Super 8 Motel there is sold out. The ones that are not sold out tend to be quite expensive. But, one quality motel still has rooms available and is willing to offer us a group rate which is not bad. It is the Econolodge in Osoyoos and they have offered us a group rate of \$119 (Canadian) per night for July 8th and 9th weekend. But, we must make our reservations soon. These rooms will only be available to reserve for a very short time.

The telephone number for the Econolodge in Osoyoos is 1-250-495-2633. You need to call them to reserve your room and ask for the group rate of \$119.

If you plan to attend, please contact jay@treefarmtapes.com so we will know you are coming and keep an eye out for your arrival. See you in Osoyoos!

CADE RAID IN FINLAND

Our first Cade Ride of Finland is next summer 2006. We ride 1000 ml inside Finland three days. What days, I don't know yet. But it apparently will be soon after Midsummer Day, maybe about the 29th of June 2006. CadeRaide of Finland will depart Tykkimäki of the Kouvola and circulate around of Finland 1000 ml / three days.

WISCONSIN CADE RAID 2006

It's time once again to start planning for our Wisconsin Cade Raid. We could hold it either the weekend of June 24th or July 15th. We could also once again meet at Nora's Tavern, which is 10 miles east of Madison on Hwy 12/18. Or if you prefer, I can look into some meeting places around the Wisconsin Dells area. Also let me know if you are interested in a one or two day event and if you would be looking for lodging. ~ I would like to get the date and location set by mid April, so email me with your ideas by then. Any new Cade owners in Wisconsin or surrounding area please email me with your info.
jerrytenant@verizon.net ~Jerry Tennant

AMERICADE 2006

This is the country's biggest motorcycle rally at Lake George, NY. We normally get about 30 Cavalcades in attendance among the 50-60 thousand motorcycles at this huge event. Cavalcade headquarters at Americade is Mrs. B's Sub Shop in Lake George. Check in there to connect with your fellow Cavalcaders. Lodging and scheduled events fill up early, so make your plans now. For complete information go to this web site: <http://www.tourexpo.com/data/>

IF YOU ARE PLANNING A RIDE, RALLY, OR OTHER MOTORCYCLE EVENT

of interest to the membership of the Suzuki Cavalcade Owners Group, send the information to jay@treefarmtapes.com and it will be posted in the next issue of this newsletter.

~~~~~

~~~~~

~ TRIPS AND TIPS ~

~~~~~

### **GPS**

I am planning to add intercom and GPS to my 86LX for a ride from Ontario, Canada to Key West Florida. A large screen, weather proof and lots of memory are important. Are there any suggestions, or experiences? ~

### **BUILT LIKE A TANK**

Well all, I now have to say --- first hand experience --- that the Cade is built like a TANK !!! Was sitting (dead stop) at a traffic light tonight on the way home, when the Cade and me were bounced about 3 feet forward and the Cade just laid down nice as you please!!! The woman (really was) just rear ended me at about 10 miles per hour!!! Some other drivers picked the Cade up and me up off the pavement and than the cops showed up and we all inspected the Cade for damage--- THERE WAS NONE! Cops were mumbling about the women being blind because of the size of the Cade and all the lights on the rear and promptly proceed to give a sobriety test to the women. Anyway, all is well and no damage done, and there is nothing that a few drinks will not take care of tonight. But the Cade is built like a tank!!!!

### **ROADSIDE TOWING SERVIC POLICIES**

I'm just curious. Do any of you have some type of Road Service (towing) policy? I used to be a member of the GWRRA just for their Road Service plan. If you are covered, who do you use? ~Peter

Peter, I have Triple A, but to have motorcycle tow service you have to have Plus RV so it costs about \$100 a year. I think it is a little pricey but has paid off a couple of times. You have to hope you are near a town that has Triple A service when you need them. ~Kirby, 86 LX, Topeka, Ks.

If you are an AMA Member, they offer low cost bike towing as part of their add-on services...

#### Motorcycle Roadside Assistance for AMA Members

We motorcyclists love the open road — not sitting beside the open road with a broken bike, a lost key or an empty gas tank. We hope your rides are uninterrupted bliss. But if reality intrudes, and you need emergency roadside assistance, MoTow is your best call.

MoTow: People who know how to tow motorcycles, available 24 hours a day, in all 50 states plus Puerto Rico and Canada. Just \$25 a year covers ALL of your motorcycles.

I have my motorcycle insurance through BikeLine and they offer a road side service. Had to use it once when my stator went out and there was no problem. Call them and they get someone to pick you up and then send them the receipt and they send you a check. Before them I used the service through the AMA, but never had to file a claim. ~Tom (1986 LXE in Alabama)

I have road service on my Progressive policy although I am also a member of GWRRA for the same reason. ~Jerry

I have motorcycle towing service. They are in Las Vegas. Very good, broke down on the 4th of July. Towing got there in 1 hr. kept the bike until next working day & took it to the Suzuki dealer for the same price. MTS paid first \$100 I paid \$25. Telephone # 1-800-999-7064 If you get it give them this #14174 I pay about \$45 a year ~Bob in pa

Peter: Bob again go to motorcycle towing service on the net to get info. ~Bob in PA

~~~~~  
~ **TRACY'S BENCH** ~
~~~~~

**NUMEROUS ISSUES: ON-LINE STORE, BEARING SPACERS ETC**

Sorry I've been kinda out of touch but I've been incredibly busy. Here are some updates on things that I've been working on.

**Online Store** - It's been a while since I took my online store down for security issues but I'm close to having it back up and running. I spent a lot of time screwing around with a hosting company that couldn't get my SSL certificate to work on their server and then poured over different shopping cart programs trying to get the right one but I think I finally got it all together. I will send out the link in a few days. I have yet to get all of the items added and install another ordering module but am working on that.

**Bearing Spacers** - I finally got the rear wheel bearing spacers, or at least some of them. Suzuki screwed up and divided up my bearing spacers and sent them out to the 3 national warehouses. It has taken over a month from the time Suzuki got them in California till I got a box from Atlanta yesterday. I'm expecting 2 more boxes from the other warehouses with the remainder of the 50 I ordered. I have a few of you on the list to get one so bear with me a few days more till I can get them packaged up with the bearing/seal and sent out. I will be adding them to the shopping cart.

**Voltmeters** - I'm slowly working through the meters I have in here for repair. It's been a challenge as I've been under numerous deadlines to finish projects for customers (not Cavalcade related). There will be no new meters. I am only repairing the ones that are sent in with new LCD modules. The only other option I'm offering is a refund if you don't want your meter repaired.

**Fork Tubes** - I sent 6 fork tubes to the chrome shop to be stripped and re-chromed, unfortunately, the results were less than acceptable. After the chrome was removed the source of the pits/scratches were revealed as being in the underlying metal. No amount of work would allow them to be acceptable. I have since set myself up with Frank's forks to be a dealer for them. I bought 2 sets of inner tubes and am impressed with the quality. I will try and keep a set in stock and will add them to the shopping cart.

**New Pricing on Parts** - I got really fed up with my parts supplier as they had no appreciation for the \$40K+ a year I spent with them so I changed. I found a little better deal with a lot less headaches. I will be adjusting some prices as I can. Keep in mind that there will be only a small change in low cost parts since there isn't that much markup to begin with. I won't be as low as Crotch Rocket but for the things that I stock there won't be too much difference. I will still have one of the best prices around on EBC rotors and Progressive shocks.

**Fork Braces** - I'm about to make another run of fork braces so bear with me a little longer. I've had so many requests that I had to pick up another bar of material so this run will be 32 braces. These are not all spoken for but more than half

of them already have a name on them. If you are wanting one, I need to know which style (see <http://www.billydump.com/cav/instruct/braces.htm>). Send me a private e-mail at [tpres@mpks.net](mailto:tpres@mpks.net) so I can get you on the list.

**Bikes** - I now have 3 Cades besides my personal bike and the club bike. All of them will be for sale in the future. One of them is already spoken for locally. One will be a cruiser and the other a fairly stock LX. In all cases, they will have been gone through from one end to the other and fully updated for all issues that I feel are service and safety related. These will not be low cost bikes but anyone that buys one will know that it has been completely been go through and there will no surprises.

That's all I have for the moment. I'm sure there's more but I've burned up enough bandwidth already. ~Tracy

## **ELECTRICAL PROBLEM**

It's been awhile since I have written in, but I have a problem that I cannot figure out. The problem is in my starter system (I think). Here is how it works. The only way that I can start the bike is to pull the headlight fuse. If I leave the fuse in, the starter will not even energize. I can hear the relay click ever so slightly under the cowling. But if I pull the head light fuse, the bike will start right up. I have installed a new battery, cleaned the ignition switch by removing it and disconnecting the wiring harness on the bottom side and cleaning the contacts and the switch it's self. I have taken the fuse box apart and clean all contacts. I have taken the starter switch apart so many times I can do it with my eyes shut now. I have removed the leads to the starter and cleaned them. I also have bypassed the clutch switch by twisting the wires together that run beneath the cowling in order to eliminate that switch. I have tested the voltage on the battery with it disconnected and then tested the voltage with the battery hooked up to the bike (minus the clock) and there is but only a slight drop in voltage. (I don't know how to test if there is an amperage draw on the battery.) I also have a new kill switch wired in, so there should no problem there. I have run out of ideas. Could my problem be in my headlight wires? Maybe it's a short that somehow does not allow the relay to kick in? When I pull the headlight fuse the relay works just fine when starting the bike, no problem there. So, if anybody could give me some advice I would appreciate it. ~Joe in AK, '88 Cade....

My guess from your readings is that you have a bad battery. Most 12 V relays won't work well (if at all) when the voltage gets close to 9 V. You could have a problem with the contacts in the relay, also, but that is a separate issue. You can take the relay apart and file the contact surfaces and put it back together (just did one last month) and that helps to restore it's ability to transfer current but if the voltage at the coils is dropping below 10 volts then it's not hitting very hard when it closes so the contacts have to be in really good shape. If the contacts are pitted and it doesn't hit very hard then that could be part of your problem.

Also, on the 88 models there are additional relays in the start circuit (part of the side stand safety) and if those relays don't see enough voltage they make the problem worse. Anyway, I still say your battery is on the way out. Plus, if you're only getting 13.2 volts with it running at 3K then you may also have a charging system problem (reg. or stator or both). ~Tracy

Hey Tracy thanks for the note. I just installed a new battery so not I'm sure if that's the problem. But I will keep that in mind. I will try running the bike at 3000 rpm to test the voltage and see what number I come up with. I will try to clean the relay and see what happens there. Where is that additional relay hooked to the side stand? Maybe I otta hunt that one down and take a look at it also. Work keeps me away from the shop so I will get to it later this week and let you all know what's up. Thanks so much for the help. ~Joe in AK, '88LX

Well, a new battery isn't always good. If you can, take it back to the place you got it and have it tested. If the voltage at 3K RPM doesn't come up to 14+ volts then either the battery has a bad cell or the regulator or stator is toast (or both). I assume you've cut out the ground connector at the battery and soldered the wires together. If you haven't, that would be

the first thing on my to-do list. I dunno where the other relays are located. Someone else with an 87/88 model might have that info. ~Tracy

## **TROUBLE-SHOOTING ELECTRICAL PROBLEMS**

This is my first posting, so let me introduce myself. I am Ricky, from Kissimmee, Fl. I'm a new Cade owner, bought it this past Dec. I love the ride, but so far I have been working on it quite a bit. This morning my Cade did not start, would not even crank. The LCD display was blank. I measured the voltage of the battery, while connected and the ignition switch in ON and it was 0.1 volts. I jump-started the Cade and voltage was fluctuating between 10 and 12 volts. I rode this past Sunday with my wife for about 120 miles without a glitch. What could be the problem with my charging system? AND... What drained the battery, which was fine Sunday afternoon and completely dead by Tuesday morning? ~Ricky

I posted the below some time back and I repost it from time to time as the need arises. It's pretty long but should help you (and possibly others) with the Cade charging system and diagnosing it. ~Tracy

The charging system on the Cade is like that installed on a huge majority of bikes. It's very simple having just 3 components and only 2 of those are subject to failure; the stator and the regulator/rectifier (or RR). The third component is the rotor but unless the field magnets magically lost their magnetism or somehow exited the assembly (virtually impossible on both counts) then the rotor isn't subject to failure or replacement. \*NEW\* Extreme heat can cause the magnets to lose magnetism.

The stator is located in the LEFT side engine cover (left when sitting on the bike facing forward). The failure of a stator is typically through shorting of the windings to each other or to the stator stack (the stack of thin plates that are riveted together to provide the poles on which the windings are wound). In either case, some or much of the power being generated by the movement of the magnets past the poles will be drained off by the short.

According to Spikes statistics, a stator should last about 40K miles. However, that is a mean value. Actual life is due to a number of factors but some stators last much longer and a few don't last quite that long. The reason the windings short out is due to heat. The insulation on the stator windings is basically like a thick coating of paint not like the plastic insulation found on ordinary wire. Because they have to pack as much wire into such a small space to realize a suitable power output, this enamel insulation has to be thin and is only going to last so long. The cooler you keep it the longer it should last. However, since the cooling is by the engine oil and since we really can't modify how much oil spray gets onto the windings; we have to accept that the windings will fail eventually. That's just one of the drawbacks of a permanent mag, shunted system. I'll explain the shunted part in a minute.

Of the numerous stators that I've looked at, the typical failure is in the upper quadrant. It appears that's where there's the least amount of oil spray to the windings and that area runs hotter and the insulation cooks faster. Since this is a shunted type system, the windings are under constant stress.

In a permanent mag system the field is created by permanent magnets mounted inside the rotor which is spinning at crankshaft speed. As each magnet's north and south poles pass over each stator pole electrical power is generated in the form of AC (electrical power being defined loosely by the movement of electrons in the windings). The windings on the stator are connected in such a way that 3 separate phases of AC are generated. The no load output of the stator with the motor spinning at 5K RPM is around 100 volts AC even though some high output stators are wound differently and can put out 200 no-load volts. Obviously, this is way more voltage than what we need plus, we need to convert it to DC so that we can use it to power the bike and acc and keep the starting battery charged. That's where the RR (regulator rectifier) comes in.

The RR is mounted behind the tachometer (in front of it) and is attached to the fairing frame. It serves the function of both rectifying the AC from the stator into usable DC and it also shunts the excess power to ground to keep the voltage

within a range that will power the bike and acc and also keep the battery fully charged. Under normal circumstances, the RR will keep about 14-14.5 volts on the system. Even if the battery is fully charged, it should maintain that voltage. However, when idling or when the demand is greater than the output of the stator, that voltage can fall and under other conditions it can also go up.

If you don't have any extra lights on and you can't read 14 volts at the battery with the motor spinning at 3K or so, then either the stator or the RR or both will probably need to be replaced. I say probably because there is one important thing that needs to be checked before committing either component to replacement.

There is a connector in the battery compartment through which the RR sends its extra current to the ground side of the system. That connector in some (possibly many) cases will become corroded, loose or whatever and the RR can't shunt the extra power to ground properly so the RR will see much more heat than what it was designed to and is destined to fail if the connector is not repaired. Actually, the connector isn't even needed since it was only there for the original assembly of the bike. If you check it and it looks fine, good. Just make sure it's clean and tight and it won't hurt to use some dielectric grease on it to prevent future corrosion. Dielectric grease is available at any auto parts store and is also listed as bulb grease. It is generally silicone based and has a very high viscosity and won't melt and run out of the connector like ordinary dino grease or Vaseline. Silicones have extremely high melt temperatures and those sold as electrical grease (dielectric) are made especially for electric applications. A tube will cost \$2-3 and is enough to do about every connection on the bike. In fact, every time you have to take a connection apart, it's a good idea to make sure it's clean and grease it to prevent future problems.

The connector in question can be seen at <http://www.billydump.com/cav/instruct/statorregrec.htm>

If the connector looks good, you can proceed to checking the stator output. BTW, I'm assuming that the battery in the bike is good and doesn't have an internal short or something else wrong with it. If you aren't sure, have it load checked. Most places that sell batteries can also test them. If the connector is melted or has other obvious signs of high resistance through it, it should be cut out and the wires soldered together. If you repaired the connector recheck the system voltage with the motor running at 3K or so and if it still won't come up to 14 volts, then checking the stator is next.

Unfortunately, the only way to check the stator is with the stator leads unplugged from the RR. Those connections (also shown at <http://www.billydump.com/cav/instruct/statorregrec.htm>) are located just to the right of the headlight (sitting on bike facing forward) and will most likely require the removal of the right upper fairing to access. If you have child-size hands, you might be able to reach them through the right speaker hole and the right flasher hole. You have to unplug them so the no-load voltage output can be checked. The stator wires are generally yellow but could be another color if the stator had been replaced prior with a rewind. You would then just look for the yellow wires coming from the RR and unplug the 3 large plastic connectors. There are 3 small bullet type connectors that tie the stator leads to the noise suppressor that hangs on the right side of the headlight but those do not need to be unplugged to test the stator.

With all 3 stator leads unplugged from the RR and with an AC voltmeter set to read at least 100 VAC, test each pair of stator leads while running the motor up to 5K RPM. By each pair I mean 1 and 2, 2 and 3, 1 and 3. Each pair should produce at least 90 VAC at 5K rpm. If you get something less than that on one or more pairs, then the stator must be replaced. Fortunately, stators are easily rewound with new wire since the stator stack is reusable over and over. Several competent re-winders are listed at [http://www.suzukicavalcade.com/parts\\_vendors.htm](http://www.suzukicavalcade.com/parts_vendors.htm) plus I keep them in stock also. Rewound stators run about \$125-\$140 and there are even new stators available from Rick's for a little more money. New isn't better, Rick's was running out of cores and since the Cade and the FI Gold Wing share the same stator stack, Rick's had tooling made to produce new stacks. If you get a rewind, you are normally required to send in your old stator as a core.

If the stator checks "good" (90 VAC + on each pair of 3 legs at 5K RPM), then the only thing left is the RR. New ones are available from several sources at the same address as above and will run about \$120-\$140 I also keep them in stock.



Just a note, the Electrex RR will not come with the factory style plugs for the stator connections and you'll have to reuse your old ones and connect them on the new reg. Also, it won't use the orange wire. That wire was used to sense system voltage and the new regs do that internally. The one from Rick's comes with the factory connectors all around. It's been expressed that if you want an Electrex, you will probably get better service out of Dennis Kirk than buying it direct from Electrex.

If the stator checks bad then, obviously, you'll have to replace it but the RR may also be bad. There is check procedure for the RR in the service manual using an ohmmeter. If you don't have a manual, send me an e-mail at [tpres@mpks.net](mailto:tpres@mpks.net) <<mailto:adnet@mpks.net>> and I'll send you that page out of the manual.

That's about it. Simple as pie! Please note, though, that the stator may check "good" but may still be on its way south. If you have 40K or more miles and you want to be sure that it won't die on you in the worst possible place, then you will have to remove the left side engine case and look at it. Even though there's no steadfast way to tell whether it's gonna fail in the next few miles, if it looks like a crispy critter then a replacement is probably not a bad idea.

## **CHECK THE DIODE CONNECTORS**

I finally got the chance to work on the bike and I think that I solved the electrical problem. I ran the rpm up to 3000 and I had a voltage reading across the battery terminals @ 14.2 volts so I had a pretty good idea that the charging system was working ok. I then focused the starter relay and ran a jumper wire from the ground post on the relay (small wire) to the negative terminal on the battery. Like I said in my earlier e-mails, the bike started good with a good battery charge but when the voltage dropped, some the relay would not connect. So with that in mind I turned on all the lights, radio and ran the battery down to about 10 volts and the bike would start right up. Then I would re-hook the starter relay ground back up and the bike would not start. I did this sequence several times and each time the bike would start when I would jury rig the ground. So I guess that was my problem. I must have had a bad ground connection somewhere in the ground to the relay post. I appreciate all the help and ideas that were given to me. This is an excellent support group. It will be a month or so at a minimum up here before I can ride, but not I think I will be ready. At least the bike will be ready; I was ready last fall when I parked her. Thanks again.... ~Joe in AK, 88LX

Don't want to rain on your parade but I have couple of comments on your fix. The ground side of the relay doesn't go directly to ground through the harness. It first goes through a diode then to the cruise control and then to the safety interlock (clutch switch). So, by running a wire directly to ground you are bypassing the cruise control and the clutch switch which may render both of them no-op. I might suggest that you have an issue with the diode or the connections to the diode. I have noticed corrosion in the diode connectors that could be causing your problem. The one to look at has a DkGr wire with either a yellow or white tracer on it. ~Tracy

## **GOT THE SHAKES**

I'm having a problem with my 'Cade. Sometimes when riding I get bad shakes if I let go of the handlebars and even when holding the bars with one hand. Tightening up my grip always stops it. I don't know if it is fork springs, head stem bearings, or as I've read from some people, the rear shocks. I checked the play in the head stem bearings and there doesn't seem to be any. Should there be any play at all? I am suspecting it is the fork springs due to the fact that the forks seem a bit easy to compress and will stay somewhat collapsed after a good stop. Does anyone know where I can get a set of fork springs alone? How about head stem bearings? I have already dismounted and checked the fork brace and it looks really good inside where it is prone to cracking. Also how do you remove the funny star looking nut from the top of the triple trees without the factory tool? Vice grips? I don't think the rear shocks are the problem as they seem to work just fine. ~Bill B.

The most common cause of a headshake is the front tire. If it's a Dunlop, run your hand over it and see if it's scalloped on the edges. If it is, then very little else that you do will cure it completely until you replace the tire.

The steering stem bearings are less about tightness (preload) than they are about lubrication and notching of the lower

race when it comes to instability. The factory put but a small swipe of grease in them and by this time it's pretty well dried up. Sometimes to the point that the grease forms little ridges that act like little doorstops to the bearings. Also, dents in the lower race (probably more accurately described as wear marks) allow the rollers to fall into them and make the front end notchy. When you make small corrections, the bearings have to climb out of the dents and that can lead to instability. The upper nut can be loosened with a hammer and punch or I think I use a 1 1/4 wrench. It doesn't fit very well but it gets the job done (might be a 1 3/16"). Steering head bearings are available aftermarket for about \$35-40 for the set.

I would not blame the condition entirely on the fork springs or the swing arm bearings or too little oil in the forks or worn out rear shocks but all can add to the problem. The OEM fork brace, regardless of how it looks today, is suspect and should be replaced with a machined billet brace. I have them for \$75. Sometimes just the addition of the billet brace will cure a minor headshake. But, it will not cure a bad tire or other problems. I also have the Progressive fork springs for \$65 for a set. If you put some in, you will need to tune the preload to your weight with the spacers provided. You should install them with the spacer full length and ride it (without reinstalling the false tank or headstock cover) and see how it feels. If it's harsh, then crop 1/2" off each spacer and ride it again. If needed, whack about 1/4" off at a time until you get the ride you want. Another way is to measure the sack of the front end. Extend the forks and put a zip tie around one fork and slide it down against the seal or measure the distance of the outer tube to some fixed reference. Sit on the bike. The front end should sack (drop) about 1" with your weight. You can have someone measure the outer tube to the same fixed reference or, if you use the zip tie method, get off and re-extend the fork to measure the distance it moved. I hope some of this helps. ~Tracy

Thanks Tracy, My front tire does need replacing, but isn't scalloped. The head stem bearings seem to move smoothly, as I've had experience with bad bearings and how they feel. I have a gut feeling that it is the fork springs, but I desperately need tires and will replace those soon and see if it goes away. I went to the billydump website and the only fork springs I saw were with the whole fork kit, which I don't think I need (at least not now). If I need them can I just send you an e-mail to order the springs?

## **MORE ON THE REAR WHEEL LOCK-UP**

I haven't seen or heard of a bearing that can fail catastrophically, causing a lockup, then later cool off and free up. I suppose that could happen though, if you are certain that plug couldn't jam those gears. I agree partially: it strains my imagination to think that plug could possibly do this. But: I still think its worth checking, since it would be easy to poke a chopstick in that secondary and make sure it comes out dry. If not, we have a whole new unpleasant task ahead of us. I hafta find my coworker with the Madura for starters. ~Spike

Spike, What is happening is one of 2 things from what I have witnessed. The locked up secondaries that I have seen had 2 distinct failure modes. One method is a shedding of super-hard skin of the rollers in the bearing. Since the rollers are casehardened, the skin is rich in extra carbon from the heat treating process and will shed off like skin when the bearing becomes overheated. This skin breaks up into little bits and they become hundreds (possibly thousands) of little doorstops floating around in there. Once enough of these doorstops get forced between the rollers and the inner/outer bearing races the bearing fails to rotate and the unit locks. But, once you stop the bike and take the pressure off the doorstops, they can fall out and the unit will rotate again.

The other thing I have seen is the bearing cage (what keeps the bearing rollers in place) getting so hot that it welds itself to the outer race. In that case, the wheel may lock and then release because the weld is not a perfect one (case-hardened is really hard to weld to). That's what happened to Larry Dilldine's unit. The wheel locked, then released and then locked and released again.

Again, Spike, the plug cannot lock the gears. You have to look at the way that hypoid gears mesh. They do not mesh straight-on; they do so at a helical angle (that's why they are so quiet compare to straight bevel gears). It's not like you

can just through something between the gears and it will stop them as they are meshing at such a complex angle (the reason that hypoid style gear oils had to be developed is because of the extremely high shear that goes on with hypoid gears). The unit will not lock unless there is a catastrophic bearing or gear failure. The OEM plug cannot lock the gears.  
~Tracy

## **RECOMMENDED CAVALCADE OIL FILTERS**

I have just checked into oil filters. A guy on eBay is selling Fram 6018 filters and says it fits all Cavalcades. I remember recently messages referring to 6016 and 6018 filters from Fram, so I asked a mechanic friend to check into it for me. He says the Fram 6016 in an Imperial thread and the 6018 is a Metric thread, so I assume the 6018 is the correct filter. He also says the Fram filter does not incorporate a check valve to hold the oil in the top of the engine when turned off like the WIX and many other filters. This means the engine needs to make several revolutions prior to feeding oil the top of the engine. Can you verify these statements? Does it make any difference if the Fram does not have a check valve? ~John S.

This is the filter listing for Cades. It may be incomplete. I don't know if any of them have a check valve. I know the WIX does not.  
~Tracy

'85-'86

WIX - 51348

WIX Extended - 51214 or 51516

Fram - PH3614 or PH6016

AC - PF 53

NAPA - 1348

STP - S3614

Amsoil - SMF108

~o~

'87 up

WIX - 51359

Fram - PH6018

Purolator - ML16818

STP - SM018 (or SMO18)

Emgo - 10-55660

Carquest - 85359

NAPA - 1359

Amsoil - SMF109

## **PLASTIC REPAIR**

What tricks are out there to repair the plastic/nut when it is broken where the metal nut cylinder is supposed to go? I have a few of those to repair as well. ~Ricky

I have repaired many of those and here are a couple of methods that I've used. If the tab is completely missing, you can make a new one out of some ABS sheet and weld it to the main piece using a pencil tip soldering iron with the tip ground to a chisel point. Don't be afraid to build up the backside or both sides over the weld area to give it more strength. Once the new tab is in place, you can put a new insert in it. I've not found a supplier for the original style inserts but have bought some at Harbor freight that got the job done. You have to use an 8-32 insert and then tap it with a 4mm tap. You can use the old insert if you have it but will have to drill a larger hole to get the swelled part through it.

I rough up the backside of the plastic tab well and rough up the shaft of the insert that will on the backside of the tab. I use epoxy and mix a little cut up fiberglass (1/8" bits) or carbon fiber (1/8" bits) mixed in with the epoxy and I apply it liberally to the backside of the tab around the insert. You may have to use a bit of tape on the other side to hold the insert in place until the epoxy gets set. I have also made tabs out of aluminum and tapped them 4mm instead of installing an insert. Then you can epoxy the tab to the base piece. This only works in some cases depending on where the tab was attached and whether you have a lot of surface area to adhere it. ~Tracy

~~~~~

CADES FOR SALE

~~~~~

### **Sacramento, California**

I have an '86 LXE for sale in the Sacramento, CA area. I'm moving cross-country and unfortunately must sell. It's 2-tone blue with 63,500 miles on it and runs great. It has new tires and a new U-joint, and has the original radio (which works). The seat is ripped along the seams. Price is \$2700 OBO. Photos are available upon request. Please contact me at [biostatsdude@yahoo.com](mailto:biostatsdude@yahoo.com) or 916-803-0862 if you're interested. Thanks! ~Dave Harris

### **Mentor, Ohio (just east of Cleveland)**

I have an 87 cavalcade in my garage. It has been sitting there for about 3 years. It did run when we put it there. It has been partially dismantled to change tires. (Anyone who has tried it themselves knows how much of a pain it is) it does have both new tires that will come with it. The front one hasn't been mounted yet. The tires are the correct ones for the bike with the heavy duty sidewall. (I believe that they are Dunlop d204) the bike was my dad's and he gave it to me. The bike is in relatively good shape it was ridden a lot so the wear factor is there. It would be a great fixer-upper or a great parts bike. It is the brown/tan color w/ matching intercom helmets. I do believe the radio is missing or it might be in the garage somewhere. The only reason I am getting rid of it is because I need the room in my garage. oh yeah and I almost forgot the header pipe was dented on one of the pipes due to an asphalt give-out under the weight of the bike. It didn't hurt the performance of the bike but it did make it look not so good. All reasonable offers will be considered. Any questions or if you want pictures please email me and I will do my best to get them for you. ~mike

<[aquaboy6262@yahoo.com](mailto:aquaboy6262@yahoo.com)>

### **Carrollton, Texas (Dallas area)**

Cade for Sale - \$3,900.00; 86 Blue on Blue LXE, Just under 70K miles; Like new condition – no scratches. Heel & toe shifter, driver back rest, trailer hitch, driver/passenger/road footboards, etc. Always garaged; two helmets w/ intercom included, one XL, one medium and full bike storage cover. It has the original side storage and trunk storage bags. Everything works except the CB. It will need new front tire soon; rear tire is in good shape. Email [dailysr@gmail.com](mailto:dailysr@gmail.com)  
Cell Phone 972-345-4584

### **Lewistown Pennsylvania**

I have a 1986 LXE good shape Blue/Blue 100,120 miles some extra parts chrome bumper trailer hitch repair book front & rear tire good back rest, radio switches were done Tracy's plug was put in new final drive seals. There's more!  
Contact me @ [skiproyer@verizon.net](mailto:skiproyer@verizon.net)

### **Idaho Falls, Idaho**

1986 LXE, brown/brown, radio is stuck (needs switches), No secondary leak (yet), Real good condition 34,000 miles, He was riding it last fall - has the CB and lowers - he says other options, Asking \$3400. Telephone: 208 589-0694

### **Nashville, Tennessee**

I've just ran across a pretty nice LXE for sale. I forgot to ask the year, but it's most certainly either an '86 or '87 model. The map pocket is intact and it also has the coin holder. Tires are good. Seats are good. I took some pictures and told the gentleman that I would let everyone here know about it. He wants \$2500. For more information, please email me personally at [jrramsey12@aol.com](mailto:jrramsey12@aol.com) and I'll send pictures. ~Bob Ramsey

## Ohio

Fellow members, it is with a heavy heart I am putting my blue '86 LXE Cavalcade up for sale. It has the Tracy plug installed, radio repaired, new rear tire and looks good overall. On the down side, the seat has a split in the cover. I will be installing a new battery and Tracy's clutch switch. Mileage is around 71,000 price \$3,500. Anyone interested e-mail me JSMcLR7@AOL.COM or call eves at 937-547-0935.

~J. McLear

We are selling a 1986 Cavalcade which was wrecked last summer. It was tumbled at 65 miles per hour do to the rear wheel lock up problem these bikes experience. It has two new tires. The luggage is in good condition and there are many other salvageable parts on this bike. It starts and runs great, no motor problems. If interested look at the pictures I posted on this site under the photos section, or e-mail me at bucalovsme@yahoo.com for me to e-mail them to you. Make us an offer on whole bike (preferably), or parts.

## Lockwood Missouri

Sadly I must sell my Cade. This has been a very good motorcycle but I need cash flow. This bike is listed on eBay item # 4627284942. It is a 1986 GT, Yellow, 62,000 miles. It has Alpine speakers and a custom fabricated stainless settle engine guard. Mechanically it could use a carb rebuild. Cosmetically it has a scratched left side saddle bag lid. The right side saddle bag lid has a crack around the front latch. There are some small scratches on the left side of the gas tank. The upper left fairing pocket is broken. Photos are available if requested. \$2500.00 ~NEAL SANDS  
<nsands@sbcglobal.net>

~~~~~

CADE PARTS BIKE LIST

~~~~~

I have an 86 LX parts bike. My name is Willie and my email is [sassys10\\_82001@yahoo.com](mailto:sassys10_82001@yahoo.com) ~Willie

I'm no longer able to drive due to health problems so I have numerous parts. I had started a complete overhaul about 3 or 4 years ago and had to quit after getting it torn down. There are new parts that were purchased that are now NLA such as the throttle cable assy. Also have map case and coin box. Also had new valve springs made which are NLA.  
~ "Woody Graetz" [woodygr8s@yahoo.com](mailto:woodygr8s@yahoo.com)