

Hi everyone,

This edition is packed with useful information on riding in groups and maintaining your motorcycle. Due to family obligations, this will be my last newsletter as your editor. Please continue to submit information to the new editor so this newsletter can be the great reading mag that it is. Happy reading, ISRA family!

Mary Jeruss

Group Riding Formations- Cluster or Solo? By Ben Harper

For years I have strongly advocated keeping a tight formation when riding in a group. In my opinion, this makes a stronger impression on other drivers than a scattered formation, and protects new riders better than riding as individuals.

However, I have had numerous discussions with several experienced riders on this subject, and I have learned several facts that I would like to share with the Galaxies in an attempt to give you a better choice than to just follow my point of view.

As I have stated before, a tight formation protects inexperienced riders, projects an impression of a large formation instead of individual riders, and lessens the inevitable bad driver from cutting off a part of your formation to "get ahead" in traffic.

There are some advantages to the more spread-out formation that need to be considered though. If you have a group of experienced riders, spreading the formation encourages more appreciation of the scenery through which you are riding, which is part of the reason we ride in the first place. As many of you already know, enjoying the landscape is a wonderful experience, and is part of the reason we ride Star motorcycles instead of high-performance, high-speed models.

Constellations also need to consider the safety advantage of spreading out on roads with heavy traffic. This formation allows for aggressive drivers to cut in and out of traffic, including your formation, without serious jeopardy to your members. Experienced riders who have ridden solo in the past are already familiar with this sort of driver, and can readily adapt to a group of individual riders as easily as a tight formation.

So, in conclusion, the choice is really yours to make. If your ride leaders feel confident about the riding skills of the participants, then a spread-out formation is probably just as safe as a tight group. As with most Constellation decisions, this one is yours to make.

I am pleased with the response to my previous letters on this subject, and encourage members to continue to offer their opinions to me. After all, even my forty years of riding experience do not mean I know everything there is to know, and I enjoy discussions with those who hold different opinions. This is how we improve our riding skills, and increase our cohesion as a riding association.

□ **The Valve Stem by Alex Ford**

Kyle Bradshaw over at Cruiser Customizing just regaled me with an interesting video on changing one's oil and he actually used the V-Star 1300, proving that the bike caught the attention of the Aftermarket people. And, it's a Star. Not to mention a V-Same.

Those people changing a flat or putting new rubber on their V-Stars probably know something about their valve stems, but those who let the dealer handle all of the changes might be surprised to know that there are several different types of valve stems and that more than one type has gone on to V-Stars since the 1990's intro of the cruiser from Yamaha Star Motorcycles.

For the spoke wheel editions, the valve stem is part of the tube, unless the owner has had his rims made into the tubeless variety. Sometimes when that is performed at considerable expense, the selection of the valve stem and type, and in some cases, modification of the hole

size in the rim to accommodate the valve stem and type must be made.

The Cast Wheel Edition V-Stars have stock R & D which includes a larger and fatter hole on the front and narrower stock wheel, than the rear fatter and smaller wheel on the rear. Let's say that again: Front wheels, 16" on the Cast Wheel editions, have a larger hole in the rim. The 15" Rear wheel has a much smaller hole in the rim. Reason: The front cast wheel uses an all rubber valve which is pressed into the rim. The air is maintained well by sealing the hole at its edge and on both the inner and outer surfaces of the rim material. Thus, when changing a wheel or tire an air pressure check should be done on that all-rubber valve seal to ensure that air continues to be maintained with no leaks. The valve stem cannot be rebuilt. The metal portion of the valve has been surrounded by the vulcanization process used in making the valve. Still, it is possible to use in its place what is known as a "solid valve stem. This is a steel valve stem that fills the same hole, without modification of the hole in the rim. The solid stem can be "rebuilt." That is, the stem can accommodate not only the grommet that surrounds it when new, but the grommet can be removed from the stem and replaced with a new rubber grommet when changing the tire for any reason or time. While the rubber unit was pressed into the rim, the solid variety is placed through the hole with its rubber grommet, often of a two-shelf or shouldered variety rubber grommet, and is held tight to one surface of the rim with a screw-type jam retention and a second jam nut so that the desired torque is maintained. This allows a single surface grommet to be used. "Solid Valves," of this type allow for customization of the valve stem angle and include direct 45-degree angle stems; perpendicular+45 degree angle stems and Perpendicular+90 degree angle stems. These have value on wheels with dual disc brake set ups where the rotors make it nearly impossible to get an air gauge in to check the air pressure of the wheel and tire combination. The solid valve stems also provide show bikes with all chrome sections of rims to maintain a chrome appearance, because the solid portion or core of the valve stem can be sent in for chroming or polishing and show chroming. No small point to certain bike owners.

The 15 inch cast rear wheel from Star, remember has the smaller hole in the rim for the valve stem, despite the fact that it is a fatter wheel and smaller in circumference than the front unit. The V-Stars 650 and 1100's have a shaft final drive instead of a belt. The result is that there is a disc brake side and a drive side which create clearly more access space on one side only of the motorcycle, when it comes to putting air in the tires. For that reason, Star chose to place a solid-type valve stem in the rear wheel. The stem comes out initially perpendicular to the rim surface and after several millimeters of climb away from the center, a 90-degree angle (bent like mandrel bending so there is no buckling at the elbow joint) is developed in the valve stem. This is installed so that the valve stem exits with its access hole facing away from the rotor and perpendicular to the bike itself. Thus the cyclist has only to place the rubber air in a straight 180-degree line with the stem, allowing filling of the tire to the desired air pressure without having to bend the air hose. Further, the valve can be removed and polished and chromed at any point. New washers with the appropriate shoulder or use of the original washer that has been carefully slipped off of the stem can then be accomplished. The retention is a feature of two jam nuts which also may be chromed. These can normally be steel or stainless steel as is

the 90-degree bent valve-stem-unit. Torque on the stem must be sufficient to maintain an air-tight seal of only one surface of the rim, but not too tight which could damage the rubber stem parts. The unit itself has a much smaller diameter hole in the stem and the end of the stem has a metal shoulder against which the rubber grommet with shoulder is applied.

This concludes the Star Cast Wheel Edition Valve Stems 101 article. It is hoped that this will stimulate some discussion or that valve stem experts will weigh in on this area of motorcycle maintenance and mechanics with even more information than is normally discussed regarding the valve stems of tires and wheels.

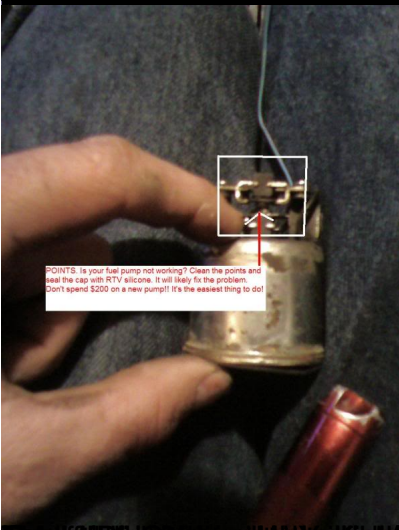
Fuel Pump Gravity Feed by Dave Wolf

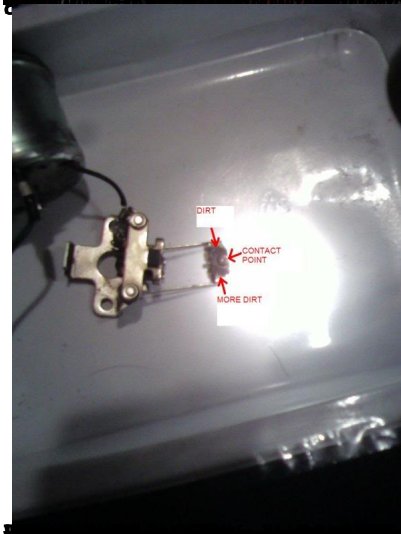
So today it finally caught up. God gave me a warning and enough time to order a new pump, but I didn't do it. On Highway 18 today sputter, stall. Sputter, sputter, etc. I pulled over, and cycled the key about 20 times. It started up, and I rode about 1/4 mile before it died again. I took off gas cap (I did the vent mod) but still nothing. With every key turn, I got a single "click" out of the fuel pump. Or, it could have been a relay.

I was in the middle of trying to start it again when the people who took me in were driving by and stopped. I got a ride back to where I live, (just in time), and made about 15-20 calls to automotive and motorcycle shops to try to get a 1 PSI fuel pump. *Nobody* has that. The best I could find online is a 1-2 PSI pump.

At 2 PSI you are doubling the effective pressure against the needle valves in the carburetors. So, I said, "let me get my tools and I will try the gravity feed."

So, I did, and on the side of the road, I did some bike surgery. I cut the fuel pump out of the circuit, and disconnected it electrically, and finally just removed it. I put the fuel pump in my backpack, and will take it apart and share what I find here. Anyway, all I had to do was remove a bunch of gratuitously long fuel lines, and turn this "T":





~~the details can be applied to any other type of engine. The~~

~~THE PERFECT (PURRFECT) SOUND by Alex Ford~~

For almost as long as I have been riding motorcycles, the sound they make has been the subject of almost as much discussion that I have heard as any other aspect of the experience.

For the Home Owners Association or one's neighbors, it is about the amount of sound that crosses the line from irritating to obnoxious that makes up the discussion. For the EPA, it is about an amount of sound that does not cross over certain limits to become a sort of noise pollution.

For the owner and rider of motorcycles, sound becomes an almost undefined "holy grail," of motorcycling. The pursuit of sound may be for some the sound coming from the most powerful possible torque and horsepower combination their motorcycle can be made to produce. For another, an incredible pursuit of, "raspy," may be the goal, emulating as closely as possible the

sound of a nitrous-charged import tuner.

Custom Harley-Davidson probably sports the oldest and loudest and lowest of the sounds on the total number of machines produced since 1948, an arbitrary year to be sure, but an important year in V-Twin development from frames and suspensions to engine types leading to today's modern cruiser, whether it be from the Motor Company or from now prominent and accepted icon, Star Motorcycles - as well as other V-twin configuration bikes.

Quickly catching not only on, but up to the sound variety and hence the pipe variety of the soul of H-D, the sound has been the V-configurations bikes which prominently include the Star cycles. My personal experience has been short lived and started with my V-Star 1100, a pearl-white 2005, California Cast wheel edition, Classic.

For nearly four years, I left this bike's motor pretty much stock. The first time that I changed my own oil, however, I had to remove the pipes. Two mental notes were made to self at that point. The first was to sell this machine. The second was to find if anything could be done about this most ridiculous design flaw in what otherwise appeared to me to be a great motorcycle. It wasn't long before I ran into a fellow who had a Jardine oil relocation kit. I immediately made a decision that I had to have one of these things in an attempt to find out whether or not I could then 'keep my motorcycle.' (After all, time is money, goes the old adage and the new one for me is time - is down time or riding time) For a time, money was an important object, but eventually, even though I did not have the disposable income, I bought one of those relocation kits of which now there are plenty, and I've never been happier with a decision in my V-Star life.

Most importantly, during my first oil change, I lifted the stock pipes. I decided that there must be catalytic converters in those huge pipes. I immediately checked the Shop manual in my computer where it resides, the result of a couple of acquisitions, so that I would know how to maintain my beast. I discovered that I had the "California model." This meant that I was not supposed to 'slip on' any after-market pipes. Further, certain designs with regard to engine studs made the front head-pipe area nearly inadequate to easily bolt-on after-market pipes. I also had motorcycles in the past wherein I had removed baffles or otherwise modified my pipes to a less-than-satisfying experience for yours truly.

I went on line with key words around 'pipes' and 'v-star' and 'motorcycle pipes' etc., including looking at what Yamaha offered and others.

Determining what is best forms one's own idea of good looks and reading about results and research and development, in order to purchase after market pipes is a sketchy business at best. After all, I had seen only a few after-market pipes on V-Stars and did not like any of them because of looks, sound or heat coming up to my legs during riding.

Nonetheless, I looked over the net for information. I also wanted to avoid, if possible, pipes that would discolor. I also decided to listen to as many pipes as possible on Road Stars and V-Star 1100's to see if I could discern from the sound which pipes sounded to me like they were the best at being 'properly tuned,' whatever that meant.

Little did I know that pipes and sound and tuning all go hand in hand. Toward the end of my involvement in the pipes process, I discovered that there was more to that sound than just the pipes. There are the intake and carburetor or injection systems and there is also the baffle or lack- thereof systems that go into the pipes. In fact, I initially thought that the best pipe and baffle systems came from the manufacturers of each pipe set, because the producer of the pipes R&D their own pipes for best performance and sound. In my opinion, I was wrong about that assumption.

After initial research on the net and my 'seat of the pants' ear tests of pipes in person and on the net - - and after looking at the pipes offered with their alleged advantages and disadvantages and their looks, I decided that I wanted pipes with parallel lines that did not show bulges of mufflers. The pipe set that appeared to have some R&D done as to power and had the look I wanted, for me, came from, "Cobra."

The next item on my agenda was pipe length. I knew I did not like the real short pipes. My 1100 had become a 'bagger' after about 21 months of ownership because I'm one of those guys who likes to take things with me, but doesn't want a back pack to lug around and wants some degree of security for my stuff. That equaled for me, locking genuine Yamaha hard bags painted to match my pearl white bike.

With the bags, which I do not like to be without, I decided that the longest of the pipes was too long for me. Sound, I decided, had nothing to do with this decision. This was a difficult decision for me because I actually like the various longer pipe designs. Finally I settled on something in-between long and short known as Cobra's Speedster Slashdown pipes for my bike. Initially, I observed these on the net on a V-Star 950 on YouTube, meaning that I had waited from 2005 until the advent of the 950 to do something about my pipes.

I mounted those pipes. At first, I was not sure I liked them, because many 1100 enthusiasts have noted in forums, I liked the look of the stock pipes. Eventually though, after a lot of compliments from friends and acquaintances regarding the Speedster Slashdowns, I decided that I would work with those pipes. Since my purchase, to be totally honest, I've seen at least three or four pipe combinations that I like the looks of at least as much as my own pipes.

After a short time frame with the new Cobra pipes on my 1100 Classic, I decided to add a K&N air filter. I did so and the sound changed slightly.

It was after the initial mounting of the Cobra pipes, however and one or two rides on my mount that I noticed that I was going deaf with the stock baffle that was provided by Cobra. My pocket book was running on empty and a check of the cost of quieter baffles showed that Cobra offered two more baffles for the pipe that were quieter. I was still hearing ringing in my ears and decided to order their quietest baffle the, 'Quiet Baffle.' I obtained this baffle at a slight discount over the net. I looked at it but couldn't for the life of me figure out how either sound or exhaust got through the pipe with the baffle in place, but I tried it. Finally! I thought, sound my ears could live with.

The next thing that happened was that I convinced myself that I like the sound coming out of the Cobra pipe. I was lying to myself. I didn't like it. However, I also kept burning my leg during summer riding months when I violated motorcycle common sense and rode with shorts on (still wearing a half-helmet, mind you.). This fact, along with a couple of healing burn marks on my leg, led me to my next effort with the pipes. I removed them and put the stock pipes back on. I then went to LaBree Motorsports. This is a professional automotive custom pipe builder for stock and race cars in the San Fernando Valley near the Los Angeles area. This guy has been racing and working with pipes for more than 45 years. I asked him if jet-hot coating the pipes would transmit less heat than the chrome that was on them at present. He assured me that the coating would in fact reduce the exit temperature from around the outside of the pipes and keep them relatively 'cooler to the touch.'

I gave the pipes to Brent LaBree and about 10 days later got a call that the pipes were coated and ready. I went to pick them up. I had another surprise in store for me.

Brent asked me to look at the pipes to see if I noticed anything. I mentioned the obvious. They

had silver jet-hot coating on them (lightening my wallet more than I liked, but looking good.). Brent asked, "Notice anything else?" I shook my head, "No." He motioned towards the flange and asked me to check out the front cylinder fastener-connector. I did. At first I didn't notice anything. Then I noticed it. The interior of the flange had an angled cut on the inside diameter of the ring, instead of the stock 90-degree angle from the factory. Brent said, "I think you'll be able to mount those pipes a lot easier now."

I paid up with cash and took those pipes home. The first thing I wanted to do was to get the stock pipes off the V-Star and put the freshly coated pipes on. I did it more quickly than ever. Practice helps. I didn't even put the chrome Cobra covers on at first and just mounted the pipes and started her up. "Better," I thought, once they warmed to the max. Instead of putting the pipes covers on, I pulled the Cobras back off. "The baffle," I thought. Something's got to be done about the sound. Then I started back at the Internet again.

Having already spent money on the K&N air filter, I decided to research sound and air kits on the forums and the net. The result: Several of the testimonials on something known as the Maxaire Predator Pro Air Kit claimed that the sound of their V-Star 1100's had improved by being "lowered." That sounded intriguing to me. I called Maxaire and spoke to the owner. Then I did more computer research. When I talked to people who put kits on locally, I couldn't find anyone with a "Maxaire." They all had various other air kits and intakes from PCS and Kuryakyn. What is the owner of a little 1063 cc bike owner to do? Money kept being wasted in a trial-and-error method with futility edging success in a shadow or the gay area of sound and power.

Having read a ton of 'success' stories/testimonials on the Maxaire site and a number of opposite type comments on several forums about the Maxaire kit I was confused but still curious if the kit could do what it claimed. That motorcycle sound still was something I didn't like and the power and gas mileage I was now getting was just a bit up and down on both. If you quizzed me, one moment I was happy and another moment I was not.

I again made up my mind: get the Maxaire Pro Predator Kit and take a chance.

Long story short, I followed the directions pretty close to the vest. I also made sure that I synched the carbs, after the installation. I also tried various settings with the air/fuel mixture screws (the name of which I'm told is a misnomer for what they actually are). On my V-Star 1100 I discovered settings of 3 turns out from lightly-seat, to 3 1/4 turns out from lightly seated were very good settings, the former for power and the latter for somewhat better gas mileage.

The sound? What had happened? Well, there is one more thing that I was doing at the same time, in the interim of getting the Maxaire Predator Pro Kit tuned. I was researching baffles “on line.”

I found three different companies online that appeared to have a lot more R&D in their after-market baffles than any of the other companies. I sent e-mail to all of them and talked to the designers when I could.

Two companies' baffles appeared to me to have a lot more in them than any other baffles on the market today: Big City Thunder Baffles; and, PowerBraids.

Without further testing of my earlier two configurations of Cobra Baffles, nor my new Predator Pro Kit, I decided that I had to make up my mind about which baffle I wanted to buy and test. After going around in my head a number of times, I decided that the only genuinely different baffle from all the others was the PowerBraids baffle. The baffle was made of 304 Stainless Steel mesh and had a special shape to it, not unlike some of the shaping of the Big City Thunder baffles. The latter used solid steel construction and was somewhat more expensive.

In search of the, ‘perfect sound’, I wanted a baffle that would make my pipes, purr like a kitten and also roar like a tiger. Beyond that, though, I wanted their overall sound to be, ‘low.’

Having sent the requisite 99 bucks to PowerBraidz, I waited about 5 days and lo and behold they arrived in their box. I pulled them out and discovered the unique part of them to be the 304 Stainless steel mesh. They had retention rings on each end and on the inside and outside of the ends of the baffles. I had already pulled the Quiet baffles out of my Cobras. I attempted to install my new PowerBraidz baffles. No go.

I looked at them and knew right away, that even though I'd measured my Cobras and supplied the PowerBraidz owner the inside diameter, that such was only approximate. Undaunted, I looked over at the bench and the small Craftsman grinder I bought on sale a couple of years earlier and saw that this was my only solution. A bit more work on my own. I set to grinding.

Slowly I might add, doing both ends of the outside diameter of the PowerBraidz retention rings, grinding down their outside diameters. I paused to check a lot of times to make sure that I didn't overdo it. I could always take some more off, but I couldn't put any back on. Hmmmmm.

After a day of grinding and several trials (I'm obviously too conservative) I got the PowerBraidz to fit properly. I then took the stock screw with me to the hardware store and obtained a tap of the same diameter and thread pitch, along with a matching drill bit with anti-walking start end. I returned home and placed the PowerBraidz units in-between wooden clad vice-holds. I drilled. I used tapping oil and tapped. I tested the screws in and out a few times. All good.

In went the PowerBraidz baffles. The stock Cobra Screws were no problem. Took a little tugging and turning and some silicon lubricant, but I got both baffles lined-up in each pipe.

What had finally gone into this set-up for the V-Star? The Predator Pro Maxaire Kit; a set of jet-hot-coated, Cobra Speedster Slashdown pipes; a set of PowerBraidz baffles. I had removed the AIS system. Used new gaskets; adjusted the valves properly for once; and I incapacitated the rev-limiter with a Maxaire kit for that as well. Finally, I added a set of new iridium spark plugs for a hot spark.

The overall results were very impressive. Huge power everywhere in the power band. Gas mileage that really wasn't too bad, getting as many as 123 miles to the reserve setting on a tank of gas.

But, the elusive sound that I was searching for had finally been achieved. This was my sound and my combination of components and I was happy with it. What clinched it for me, though, is that anyone who commented upon the sound like it.

V-Star 1100 owners have since then been asking me how I get the sound "so low," both at idle and when I whack the throttle anywhere from 1/8 open to WOT. I just tell them: PowerBraidz and some other components carefully assembled along with new gaskets and washers where needed.

One more item: I also purchased a used gooseneck for the rear Cylinder exhaust. I personally polished both the inside and the outside of the gooseneck elbow. I deburred as much as I could on the inside. I then had the unit Jet-Hot coated. Since I put the reworked unit on the bike, it has not come back off.

These days I can crank it up to 70 mph in second gear. The only backfiring I ever get is occasionally at start up when the motor is cold. There is a somewhat longer warm up period. I feel the pulses of the V-Twin engine, just like a modified Harley-Davidson, maybe even better.

The sound? It is the perfect, purrfect sound. No lie.

Happy motoring to all ISRA and V-Star 1100 owners/members.

Rear Brake Switch by Dave Wolf

Recently my brake light has been staying on. I thought it was my wiring, as it had done this before, but the wiring was solid. Usually after a lot of fidgeting, once I got underway the brake light would turn off. After much diagnosing, I finally narrowed it down to the switch itself. At one point the plunger didn't even retract into the body.

Being the guy I am, and also not wanting to spend \$23 for it online when I can fix it for a pennies worth of grease, Q-tips and brake cleaner, I took it apart and fixed it myself. Since I ride in harsh conditions (dust, dirt, rocks, bushes, water) my motorcycle is subjected to things far above what someone would experience in the city.

You will need needle nose pliers to remove the spring as it connects to the brake lever. Leave the spring in the switch itself. It is curved so that it is difficult to remove.

One the switch is removed, peel back the rubber boot on top. This may take some effort, but it is not glued, and it's not really that hard. After the boot is peeled back, (I apologize, I didn't take pics of this step) you will notice that there are two small "windows" opposite each other on the upper body of the switch.

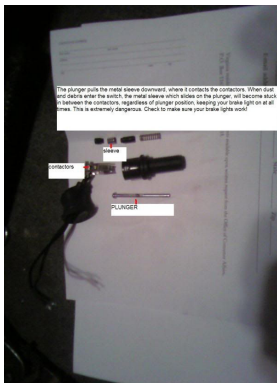
You want to take a small, hard implement and push the metal tabs in these windows SLIGHTLY inward. You want the tab to be flush with the body, that's it.

You can now pull the contactors out. They will not fuss too much, they come straight up and out. Needle nose pliers help a great deal with this.

You will notice there are two tabs that stick inward. These tabs are what contact the metal sleeve on the plunger. Take a look at these tabs. You may notice some corrosion, dirt, and dust on them. I used a very fine abrasive dremel polishing tip to restore my contactors to a nice shine and to remove some corrosion that had occurred due to water entering the switch.

Grasping the plastic body, position the upper portion of the body that the contactors came out of towards the palm of your hand. When you remove the spring from the switch, the plunger, upper and lower shims, metal sleeve, and spring will come flying out as an assembly. Don't worry, the idea is to catch the stuff in your hand, or at least prevent them from flying across the room.

Here is a picture of the guts removed. It's really very basic. I only have a cell phone, so the pictures are not as good as I want you to see.



Here I did my best to show you how the parts go back on the plunger. The plastic "shims" isolate the metal sleeve electrically, and act as insulators when the switch is in any position but "on". Each shim has a small lip on one end. The lips of the shims both face the metal sleeve.

The metal sleeve slides over the lips of the shims, isolating it from the plunger. The spring prevents the switch from being on all the time.

When I first took it apart, dust poured out of it. When I shoved a Q-tip through it, a "capsule" of dust wash pushed out.

