

Winter 1995

Volume 3 Number 1

Price \$8.00

## Name Change

In Spring 1993, when the first *ST1100 Newsletter* was published, my intent was a 4-8 page publication that could be folded and mailed in a standard #10 envelope. In fact, the first issue was just that - 8 pages squeezed down to 6 legal pages, front and back. With about 35 original subscribers, the newsletter was printed and mailed in about 3 hours.

Now, a mailing consists of almost 1000 pieces and the "newsletter" is usually 20-28 pages long. Therefore, I made the decision to drop the name "Newsletter" by the end of this year and change it to the *ST1100 Magazine*, which better describes the publication. Other than that, there will be little change in 1995 (Maybe I'll add some windscreen vents).

We are also switching this year from Word Perfect 6.0 to Pagemaker 5.0. Letters and articles may still be submitted in Word Perfect, Word or any other popular PC WP format. MacIntosh format is also now acceptable.

I hope you continue to enjoy the newsletter magazine.

## Paul Cain Joins Staff

Paul Cain of Houston, soon to be of Bloomington, Indiana, has agreed to join the publishing staff and help with the *ST1100 Newsletter Magazine* as Associate Editor.

Paul has several years of experience in a wide variety of media publications and currently is a professor at University of Texas. He has helped me several times over the past few months and upon his "retirement" from UT, he'll be joining his wife in Indiana and helping edit the newsletter.

## Publishing Schedule

Some readers have called asking when their newsletters will arrive. Generally, the season title of the issue, such as Winter 1995, will mail the last week of its season or the first week of the following season. Spring 1995, therefore, should mail the week before or after June 21, 1995.

"Magazine for ST1100 Owners and Sport Touring Enthusiasts"

ST1100 Newsletter Magazine

## From the Publisher

This issue starts our third year of publishing the *ST1100 Newsletter Magazine*. The new name will also remove any "Club Newsletter" association. From the beginning, my intent is **not** to form a club, but instead, provide information for current and potential ST1100 owners. I belong to three fine clubs that provide a variety of events and ride functions. Two of them are "all brands" clubs – HSTA and ASTRA – the third, HRC, Honda Riders Club, is managed by Honda and offers some other nice benefits and events.

**HSTA, Honda Sport Touring Association**, is the largest collection of ST owners in the country. I urge you to join them since they publish a fine directory that will list all their ST1100 owners and other riders in your area. I've enclosed a membership form to make it easy for you. Your non-Honda riding friends are also welcome to join this "all brands" club.

**ASTRA, American Sport Touring Riders Association**, is a quickly growing all brands club. Again, there are a lot of ST1100 owners in the club plus president Jeff Adams publishes a great monthly newsletter. ASTRA's address is on page 22.

This issue also is the first issue which was offset printed. Prior to that, with the exception of one short run of the Fall 1993 issue, all newsletters had been printed by xerographic printing. The volume of newsletters now has made that process uneconomical.

The much larger number of readers means we now have more resources than ever before for tips, comments, letters, and articles for the rest of us. Your articles, ideas, comments **are welcome**. Be patient, however, for it may be several issues before your letter or article is published. Please submit them on disk in any popular PC or Macintosh Word Processor format, or neatly

type-written to :

ST1100 Newsletter Magazine  
PO Box 840566  
Houston TX 77284-0566

or via Internet or CIS:

72163.2245@compuserve.com

## The Complete ST

Since so many new (and some original subscribers) have requested back issues of the newsletter, I have assembled a binder which includes copied versions of the three original 1993 issues and original issues of the four 1994 issues. The cost is \$50.00 which includes all postage and handling.

## Sport Tour Reader Mails

Issue 1 of the new *Sport Tour Reader* has mailed. The response has been great and I urge you to get a free sample of it for your own enjoyment. As with the *ST1100 Newsletter Magazine* this publication is entirely rider/reader written. A free sample is available for \$1.00 to cover postage.

## Welcome Cycle World Readers

Welcome new subscribers who learned of the *ST1100 Newsletter Magazine* from *Cycle World*. My hearty thanks to *Cycle World* for helping us grow our readership. Since the magazine is reader/owner written, the more readers we have, the more information available on this exceptional machine. Send in your comments and articles now!

Ride Safe – Ride Fun,  
W. Grant Norman

## Check It Out! New ST Accessory Library!

A new service from the *ST1100 Newsletter Magazine* allows readers to try an accessory item prior to purchasing it. This service will work similar to checking out a book at a library. Since my other job is developing software for tracking items on loan, I have decided to implement the same type of loan system to readers and loan specific ST1100 items. Also available will be special tools and possibly other items as received – maybe even books!

To start this program, I have put up the following items for loan in our library. **Items currently available:**

- 1 -Set Heli-Modified Bars
- 1- Clearview Windscreen
- 1- Custom ST Seat from Stitches
- 1- Ventura Pack Rack
- 1- Jim Smith's Luggage Rack
- 1- Hondaline Back Rest

For this program to work, I will need your help. First off, if you have some accessory or ST1100 item that is sitting in your garage unused, donate it to me to share with other ST owners. **The following is a listing of items needed!**

- Rifle Windscreens
- Other Windscreens
- Saeng Edging
- Tank Bags
- Soft Luggage
- Corbin Seats
- Stock ST Seats (that I will have custom modified)
- Two Brothers Exhaust
- Other Exhaust
- Bike Covers

- Any Hondaline Accessories
- Top Boxes – Givi, Honda Etc.
- Luggage Racks
- Heli Bars
- Bar Risers
- Other Bars
- Any Other Useful ST Items
- Supperbrace

### Ship Your Extra Items Today!

Only send items that can be installed and un-installed without damage to either the bike or the item. For instance, radio equipment or special running lights generally need wiring and some holes drilled in fairing etc. Therefore, it would not be appropriate for loan. Also, consumable items such as spark plugs, tires, steering head bearings, etc, all would not be appropriate for loan.

**Manufacturers are urged to send sample items. Dealers and independent shops are encouraged to submit items also and your company name and ordering information will be included with the item loaned.**

#### Loan Rules:

1) First **written** request for item will be honored. Additional requests will be filled in order received as item is available. Request must be received either via FAX, E-Mail, or US Mail. Voice requests will not be accepted.

2) **Borrower pays all shipping.** Item will be sent UPS 3 DAY and shipping cost will be billed to the borrower, usually \$7 – \$15, depending on weight of the item.

3) All loans are for **7 days only!** On the 8th day you are to return it via UPS 3 Day insured ( or other 3 day service). **You will be fined \$5.00 per day for late returns.**

**WG Norman**  
16350 Park Ten Place #113  
Houston TX 77084

# ST1100 Newsletter Magazine

Published By:

WG Norman

PO Box 840566

Houston, TX 77284-0566

FAX (713) 492-1382

Voice(713)463-3794,(713)492-2729

Internet:

72163.2245@compuserve.com

**Publisher:** W.Grant Norman

**Associate Editor:** Paul Cain

**Production:** Helen Norman, Wesley Norman,  
and Sara Norman

**Editorial Assistance:** All those great *ST*  
owners/writers!

© 1995 - WG Norman

## ABS BrakeSafe Responses

*There have been many inquiries and some reader test reports on the ABS BrakeSafe modules mentioned in the Fall 1994 issue. One thing that I wish to clarify immediately is that these modules in no way can compete with the effectiveness of Honda's own ABS/TCS system. When publishing Michael Gasper's article, I had just assumed, incorrectly, that everyone would understand that. My feeling is that for those of us that have non-ABS models and wish to add ABS, these modules will do that - to some extent.*

*Reader Byron Fiedler pointed me to an excellent article on add-on braking devices in the November 1994 issue of **Consumer***

### Reports.

*To summarize the **Consumer Reports** article, which is pretty negative about add-on brake systems, the main thing lacking in these and other add-on modules is computerized wheel monitoring. That is the heart of a true Anti-Lock Braking System. Without this monitoring, there is obviously a degree of "less effectiveness" in the add-on modules.*

*Real world, if you have a panic stop over sand, water, ice, oil, etc., the Honda ABS can accommodate for these traction robbers. The add-on modules, just don't have the same intelligence. However, on a clear, dry road surface, if the modules do help you stop lets say just a few feet shorter, it could save your life - and that's the margin of safety I feel these units may add. What follows is two letters from readers and their experience with the modules. Again, neither myself, nor any of these readers are recommending you purchase or modify your brake system (Read the disclaimer box below!) - we're just trying to provide our own opinions and information about these units.* Grant

Michael Gasper 's article on the ABS BrakeSafe Modules in the Fall 1994 issue convinced me so I purchased a set of three and installed them. After the test stops were

### OFFICIAL DISCLAIMER BOX

*ST1100 Newsletter Magazine* is a publication of WG Norman, and is not affiliated with any of the following organizations or companies: American Honda Motor Company, Honda Deutschland GmbH, or any of its dealers, Cycle Sports, Ltd., Honda Sport Touring Association (HSTA), American Sport Touring Rider's Association (ASTRA), American Motorcycle Association (AMA). While information in this publication is intended for the use of the reader, *ST1100 Newsletter Magazine* and its publisher, WG Norman, can assume no liability for its correctness or accuracy. Operation of a motorcycle requires both good safety and maintenance procedures and if the reader has any doubts what so ever as to the validity of any information in this publication, he or she should consult with an authorized Honda dealer. Plain and simple, if it sounds stupid, don't do it! And if you do, don't blame us - you've been warned!

done I concurred with the fact that they did improve my braking considerably. I did panic stops in increments of 10 mph from 50 mph to 100 mph indicated. All stops were quick, straight and true. Only one problem remains. I can still lock up the rear wheel at speeds below 15 mph and cause the rear end to begin to slide sideways, usually to the right. I spoke to the inventor of the modules and he suggested I bleed the unit again – which I already had surmised I may not have done suitably.

The installation instructions supplied are pretty good but I have a few additional tips. Prior to installation you must fill the modules with brake fluid. The orifice is rather small, and attempting to pour fluid into them results in a drop forming which effectively blocks the orifice. Again I spoke to the inventor and he recommended using a hypodermic needle (which I didn't have) or carefully sticking a paper clip into the unit and allowing the fluid to run down inside.

Once the units are filled you are ready to install. The instructions say to keep a steady pressure on the brake lever or pedal when installing. This is not necessary when the master cylinder is above the caliper. Wrap a rag around the caliper and quickly remove the bleed screw and install the module. Gravity will cause the fluid to bleed out slowly without allowing air to enter. The front units snug down easily – not so the rear. It must be tightened more so, but be careful not to strip the threads as the unit is made of aluminum. The instructions recommend the use of a flare tube wrench (3/4 inch) however I could not find one and simply used a 12 point box end.

Be sure to top off master cylinders and if any further bleeding is necessary, it can be done by loosening the modules. They have a small groove machined into the threads which will allow air and fluid to seep out the same as if using the bleed screw.

You cannot put a price on safety, so I

think the modules are money well spent. They cannot however be as efficient as a \$2000.00 computer controlled system. They could save your bacon in some situations though. The inventor claims they also work in the wet, but I would only put them to test on a motorcycle equipped with outriggers. For more information or to order contact BST Enterprises, Inc. – 1-800/ 257- 8720 in Gilbert, Arizona.

**Reuben White, California**

In reference to the pseudo-ABS modules from BrakeSafe and reviewed in the Fall 1994 issue, I'll admit I was a little skeptical as to how a PASSIVE device could offer true ABS. After some mailing delays and losses (Mike Woodruff of BrakeSafe was most accommodating) I received three identical modules. The two front modules went in just fine. However, the rear module needed to be about 3/8" longer to seat properly.

After another phone call, a couple weeks later the proper module arrived. After running them for a couple of months I can offer the following observations:

The front braking ability does indeed seem enhanced, however, I can make no discernable difference with the rear unit. Perhaps any appreciable difference is being masked by the weight transfer, but the rear wheel seems to lock-up the same as always. If I was going to do it over again, I'd save the \$100 on the rear unit and just go with the fronts.

One feature is a little disconcerting, the brakes take-on a spongy feel, like they need bleeding. I had a long chat with the designer and patent holder in Texas (He's a mechanical engineer and builds formula race cars) he said the sponginess is proper. It is due to the internal diaphragm that absorbs the initial shock and dampens any remaining in-phase reverberations that causes lock-up.

**Whit Brown, Colorado**

## Fairing Crack Repair

There was a question in the Summer 1994 issue about cracks in the fairing pieces. I have a crack on the large left fairing piece, just inside the upper edge of the mirror. It runs from the inner edge to the outside edge, but doesn't extend around the corner. I removed this piece (big pain!) and added fiber glass behind it. A little touch-up paint to cover the blemish and it's (almost) as good as new. Fiberglass epoxy is the only stuff I've found readily available that will stick to ABS.

**George Catt, Illinois**

## Oil Debate: The Saga Continues

One more oil comment: the owner's manual for my Honda Civic recommends 10W40, grade SE or SF, automotive crankcase oil in the standard transmission. Recommended change interval is 30,000 miles. (So much for the gears chewing up the 'long chain polymers' in a short time.) I have to assume that the Honda engineers know what they are talking about, so why can't I run standard oil in my motorcycle? My bet would be that anyone who is trying to sell us "special" motorcycle oil is more interested in my money than they are in my motorcycle.

**George Catt, Illinois**

The debate over automotive vs. motorcycle oils will continue forever, but here's my two cents worth: based on my experience with a V-45 Sabre with 162,000 miles, original cams and 5000 miles per quart oil consumption, I strongly endorse Mobil 1 15W-50 along with a half can of Bardahl #1 at each oil change. (Bardahl is a zinc-based anti-wear additive) In winter I use a 15W-50 / 10W-30 blend. I change oil every 5000 mi.

**Tim Shevlin, California**

## Front Tire Cupping

The mechanic who said it's the berm of the road being the cause didn't explain why the rear didn't cup the same, did he? My theory is: it's caused by left turns. Why not the right side as much? When making left turns, we cross at least one and many times more lanes--Leaned over and pouring power--the front wheel skips and slips side-wise. In making right turns we normally don't cross lanes and don't use the power or distance while turning. We just pull up and make a gentler turn.

I find that I can leave home and ride to Florida and back on the Interstates, covering 8-10K mi without any cupping. Then ride in town for a few days and cupping becomes apparent.

*Rod - I'm asking some of our subscribers in Great Britain to respond to your theory - they should have worn and cupped right sides on their "tyres" What do you say - readers across the Atlantic?*

## ...and from Rod's "Heck, I'm Just Getting It Broken In" Department:

I passed 120,000 miles on my 1991 ST in early October. Had to put it up the 10 October and still too bad (February) to do any riding. Looks like March may be the earliest. Put the 14th rear tire on at 112,000 and still have the original battery. Put in roller bearings in the steering head when I put it up for the Winter also. No shake - just felt it was time to lube the head. New bearings was just easy at that time. Replaced 4 headlight bulbs and front wheel bearings--along with 24 oil and filter changes. Still have 4 months left on the Warranty--then everything is normally scheduled to fall apart?

**Rod Eastwood,  
Ambassador HSTA, Washington**

## Reuben Flashes in California!

Recently, while riding on a twisty road, I came upon a (fellow/lady) HSTA member who had dropped her biker in a corner. Upon parking my motorcycle so I could assist her, I couldn't help thinking that it would have been nice for Honda to have equipped the ST with four-way flashers so I could have warned oncoming traffic.

I later picked up a flasher, a switch, and some wire at a local auto parts store and installed it. It would be too complicated to explain here briefly, but the job is fairly simple and if any of you would like to give me a call at (510) 656-2307 I will send you a diagram, parts list, etc.

**Reuben White, California**

## Super Brace

In the Fall 94 issue you suggested contacting Eldon Rix for sales of the Super Brace. Mr Rix does not have this product....

**Paul Taylor, Michigan**

*Paul, I apologize to you and other readers that called Eldon and found he did not carry the Super Brace. I did see Eldon about a month ago and he did assure me he would soon have the brace available. He can be reached at 918-825-3326. Let me know if you're still having problems finding the brace.*

## Two Brothers Exhaust

The first newsletter I received reviewed the slip-on exhaust from Two Brothers Racing. I just had to have this! Now I have a great sounding exhaust note. Its fun to hear that great engine sing.

**Bob Gillespie, California**

The Two Brothers Racing exhaust arrived in the evening. I finished the job at 1:00 AM. Once I hit the starter the sound just grabs you between the hips, and I needed to ride it - now!

The sound went from refrigerator to terminator!

**David Guevremont, Tennessee**

## Peter Honks in South Dakota!

The FIAMM dual horns were a necessity - Honda (and all the other Japanese makers) should be shot for the squeaky little horns on their bikes! ( When my kids were growing up they had squeeze-bulb horns on their trikes that were more imposing!) I installed one FIAMM in the original mount, the relay in a handy protrusion in the fairing, and jury-rigged the other horn to the bolt and hole that affixes the right-side snorkel (I only got *one!*)

**Peter Henry, South Dakota**

## Shocks and Cocks Revealed!

*Elvis and JFK seen riding Concours!*

Paul Cain, the new Associate Editor came up with the above headline for the following series of stories. (Okay, so I added the Elvis line!) First, are some Fuel Cock problems and solutions. Then, after-market shocks are coming - Works already manufacturers two, and even though Paul Taylor's article (Pg 14) is on his Fox Shock, Fox told me they still do not make an ST1100 shock. If you would like Fox to make a shock, write to them in care of **Jeff Favorite** :

**Fox Shox**

**3610 Snell Ave.**

**San Jose CA 95136**

## Fuel Cock Problem

Jim Flood, New Jersey

Honda Part #1697OMT3  
Honda List Price: \$130.15

First let me describe how I discovered the fuel cock assembly problem. While returning home to the Philadelphia area from a trip to West Virginia, I encountered problems near Baltimore after whacking the throttle to accelerate out of a pack of traffic. After passing, I let off the throttle, then tried to accelerate back up the next hill and the bike just started sputtering and missing like crazy and losing all speed and power. It was all I could do to get off onto the shoulder of the road. It just wouldn't keep running, even giving it full throttle.

It was sure embarrassing having a couple from Delaware stop on their BMW K-bike to see if I needed help. After checking the bike over for 15 or 20 minutes, I couldn't find anything wrong. Another try at starting, with full choke and throttle, got the bike going. After revving it like crazy for several minutes, the ST seemed to clean itself out and started running normally again. I jumped on and continued through Baltimore.

Unfortunately, north of Baltimore, it started acting up again after hard acceleration getting out of traffic. As happened earlier, the bike just lost all power and refused to run and I found myself again on the shoulder of the road. After several more futile attempts, and approaching darkness, I gave up and trudged to the next exit, found a motel and called Honda Riders Club.

The person at Honda Riders Club was great and arranged to have a rollback truck meet me at my bike in 45 minutes. They hauled me and the bike to the hotel for the night and returned the next morning to haul us to Ray's Cycles in Bel Air, Maryland. The

problem was diagnosed as a plugged fuel filter and two hours later and \$88.00 poorer, I got back on the road home and covered the final 100 miles without a problem.

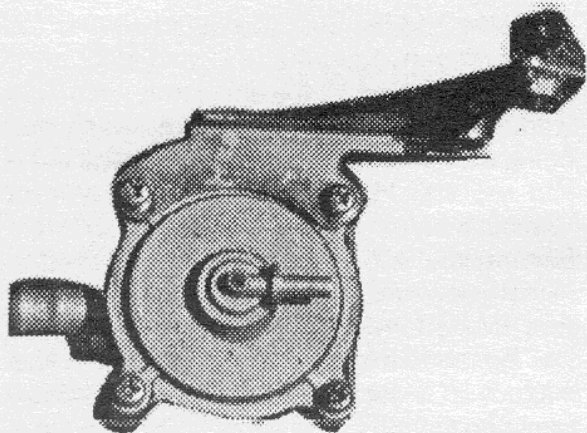
My next incident with this same problem, occurred on June 24 when I headed for "Star 94 in Nashville, Indiana. I was on the road by 7 AM and only made it about 20-30 miles from home on the New Jersey Turnpike, before the bike started acting up again, finally quitting just short of exit two.

This was really aggravating as I had just had the bike in for service at Mount Holly Honda in Mount Holly, New Jersey, from Monday through Thursday to get it serviced and checked out for this trip.

After waiting about half an hour to let the bike cool down, and trying to restart it unsuccessfully, I finally accepted a ride off the Turnpike to a diner where I called Honda Riders Club for help. Once again, the Riders Club came through with flying colors (everybody that rides a Honda should certainly spend the \$35 annually that this service costs for the peace of mind it brings even if you never need to use it, or the great service they provide, if you have the misfortune to need their services!). Even though HRC couldn't arrange for me to be towed by one of their contracted towers (the Jersey Turnpike has its own contracted towers that must be used), they got in touch with the Turnpike people for me and had them meet me back at the toll booth at entrance #2 as well as arranging for a local police officer to pick me up and haul me back to the Turnpike! They also authorized having my bike hauled back to Mount Holly Honda, even though there was another Honda dealer closer.

About two hours later, and \$153 poorer from having to pay the tow (another plug for HRC: I was fully reimbursed for the tow charges several weeks later), the bike and I were delivered back to Mount Holly Honda. They knew I was pretty irritated, so they started working on my bike immediately,





**Auto Fuel Shutoff Fuel Cock**

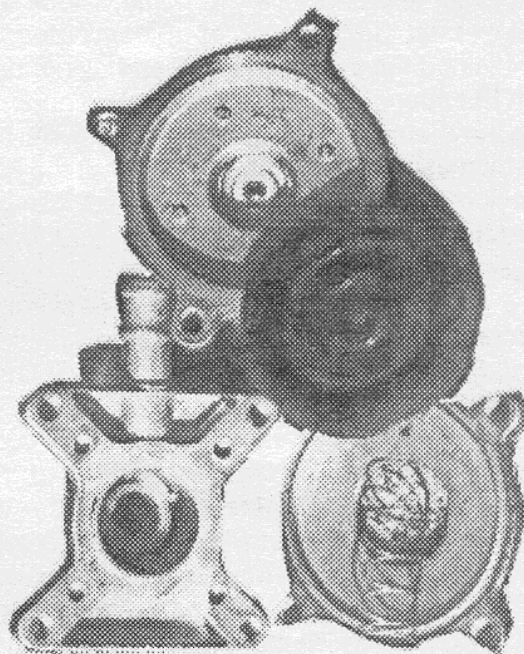
and diagnosed the problem as a weak fuel pump. Naturally, they did not have one in stock, so they cannibalized one out of a new, leftover '92 or '93 ST they had on the showroom floor. They had me back on the road by 12:30 PM, with what turned out to be a false sense of security that my ST was fixed and ready to get me to Star.

Awhile later, when I started up a long grade on I68 in western Maryland, where I had to give the bike throttle for several seconds to maintain its speed up the long grade, it started sputtering and missing and starved out of fuel, stranding me once again on the shoulder of the road. This time I was able to wait about 20 minutes for it to cool down and get started again, just as it started sprinkling rain. The bike ran fine again as long as I held it at a steady speed, and got me to the bottom of the big hill on US40 around Uniontown, Pa., where I decided to stop for dinner.

After a good dinner, I mounted up again, and just as a test, I whacked the throttle pretty good up a fair sized grade on US40, and sure enough, the bike quit again. After the usual 20 minute cool down, I was able to get it restarted and continue on. As short time later I ran into torrential downpours around sun set, so after risking life and limb on the highway which was puddling and

flooding, I rode 40 miles to Washington, Pa. and called it quits for the night. Saturday morning dawned overcast and blustery, and sure enough, less than a mile from the motel, it started raining on me again, which it continued to do, on and off again, with varying intensity until I cleared Zanesville, Ohio a couple of hours later.

Fortunately, the bike ran OK and I had no more problems with it until near Springfield, Ohio, where I had to accelerate hard to get around some traffic. I had planned to stop in Springfield at Competition Accessories. After a 30 minute wait on the side of the road, I got it started and continued on to Competition Accessories where I picked up a new helmet and gloves. I mounted up and headed up to Lima, Ohio for the dirt track race and



**Disassembled Fuel Cock**

afterward rode on that night to Fort Wayne, Indiana with no further bike problems.

Sunday morning found me, once again, riding in the rain for the final 170-180 mile leg to Nashville, Indiana. I experimented on this leg of the trip, and found that the ST

would cruise at any steady speed, but did not like full throttle or partial throttle openings for extended periods. I finally arrived in Nashville, Indiana at about 5:15 PM, and had just gone in to register at the Seasons Motel when we were hit by some of the heaviest rain I had ever seen.

While waiting out the rain, I ran into both Moose Parish and Jim Alexander, fellow HSTA'ers and ST owners, and told them my tale of woe concerning the problems I was having with the bike. At this point, I thought it was a carburetor problem, but was delighted to hear that the fuel cock diaphragm was probably the cause of all the grief I was experiencing.

Hoping to get my bike fixed salvage some good riding at Star and gain peace of mind for the 600 mile trip home, I took the bike over to Honda of Bloomington. I explained the problems I'd been having, and on the strength of Jim Alexander's diagnosis as he'd suffered the same problem on his identical '91 ST1100, they agreed that the fuel cock assembly was the probable culprit, and ordered, overnight air, a new fuel cock assembly from Honda.

When I stopped back at the dealership around noon on Tuesday I was delighted to find that my parts had already arrived. They quickly began working on my bike.

When they removed the old fuel cock assembly (which mounts just in front of the fuel filter under the plastic cover of the air cleaner), I took it apart with a screwdriver to examine it. This assembly is a metal casting with both halves secured with four Phillips head screws, which contains a round, rubber diaphragm, about 1 1/2 inches in diameter with a spring behind it, which controls the flow of fuel to the carburetors.

The diaphragm responds to vacuum changes in the fuel line. When I pulled it apart for examination, I found the rubber diaphragm had pulled away from the edge almost 180 degrees of its circumference, looking like the

adhesive had failed. I was amazed that the bike even ran at all when I looked at it.

In talking to the mechanic who was working on Grant Norman's bike, which was being serviced at the same time as mine, he told me that Honda had used this type of assembly for several years on many different bike models, with very few problems reported with it. However, when he looked at where it was located on Grant's bike, he speculated that the failure might be heat related as it was subject to a lot of engine heat, especially when the thermostatically controlled fan kicks on and off, and that might cause the diaphragm adhesive to fail over time.

He told me that the Honda Gold Wings' use an almost identical assembly, but mount it in the area around the fuel filler, which shields it from a lot of engine heat. He suggested that if I was real concerned about it, it couldn't hurt to try insulating the assembly with either aluminum foil or wrapping it with some type of heat resistant material to try to shield it from excessive engine heat.

Apparently, Grant suffered the same problem with his ST at about the 20,000 mile mark in hot and humid Houston, Texas. Jim Alexander suffered the similar problem at about 45,000 miles and he lives in Southern California. Mine failed at about 53,000 miles and even though I live in the cooler climate of New Jersey, I commute to work all year round on the bike and it is subjected to a lot of heat in stop and go traffic.

---

## THE MORE YOU KNOW THE BETTER IT GETS

FOR RIDER COURSE INFORMATION CALL:

**800-447-4700**



MOTORCYCLE SAFETY FOUNDATION

---

## The Day Ross King's Fuel Cock Died

By Ross King, Washington

I got rid of my '88 GL1500 for a lot of reasons--a biggie it was with too much extraneous computer controlled stuff on it. Then came the ST1100! I put 47,000 trouble free miles on a '91. Then I bought ST#2: another '91 with only 2,800 miles on it. With over 400,000 miles on Hondas and no breakdowns, the inevitable happened. ST #2 died on Friday, August 5th, 18 miles south of McCall, Idaho on Hwy 51.

I mean she PUKED with 23,930 clicks on the odometer. It felt like the kill switch came on. I'm an auto tech, so in 95 degree heat I began the search for truth. No less than 4 bikes passed without so much as slowing down--don't you always stop to help? I do.

I never could find the problem. I got towed in to Carl's Honda in Boise through the Honda Riders Club (join em: they covered the \$250 tow, dinner, breakfast and motel room!).

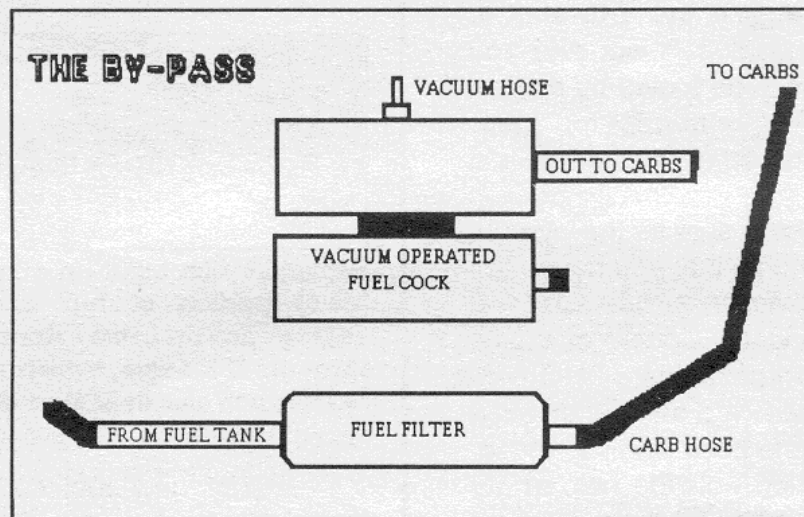
Carl's had to call their lead tech in on Saturday to figure it out. He found the problem: a hole in the HMR fuel cock diaphragm. But he said a new valve was 3 days away. So he put a spring under the diaphragm to keep it open. That worked, but it's easier if you by-pass it, especially if

you're stuck out in the boonies. You won't need a tow.

So what happened? The vacuum operated HMR fuel-cock (part #16970-MT3-000) holed its diaphragm and shut off the fuel supply. Don't rush to the factory shop manual looking for a reference to that name -you won't find it! However on page 5-2, under ENGINE WON'T START, it takes on the name AUTO FUEL VALVE and under ENGINE STALL HARD TO START ROUGH IDLING, it is referred to as AUTO FUEL VALVE. Now the clincher, on page 5-10 there's an obscure picture of it at the bottom of the page on the left side--no name--no arrows labeling the valve that causes you to STOP when it dies! However there is a great

picture of the screws that hold the air cleaner cover on.

How many of you have had this problem? My bike died at 85 mph; Charles Mourer was doing 130 mph on the Autobahn when his quit. When he talked to Honda USA, they told him he



shouldn't be going that fast and that the valve hasn't been a problem. Charles fashioned a patch and limped in to a German dealer who took the \$120 valve off a new bike and sent him on his way. I'll bet anything there isn't a dealer in the USA that carries the valve. The Honda techs I talked to in the Seattle area were unaware of it. What I want to tell you is how to diagnose and BY-PASS the valve if you're stuck. DIAGNOSIS: The bike stops, won't start, runs rough and has no power even with the throttle wide open.

1. Get to the fuel filter—pull the hose off the out side of the filter and crank over engine. The fuel will not flow unless engine is cranked.

2. Gas should go in and out of the filter. The fuel goes from here into the auto fuel valve or vacuum—operated fuel petcock (HMR fuel cock). This is what I didn't realize because you can't really see or get at the valve without taking the tank cover off. The problem is that no fuel gets to the carbs through the ruptured vacuum—operated petcock.

3. Pull a spark plug out and see if it's wet with gas. If it's a defective vacuum—operated fuel petcock the plug will be DRY. If it's wet, it's some other problem. This check should be done AFTER you have cranked the hell out of the engine trying to start it. Incidentally when the plug is out and you check it for spark, don't be fooled by a weak or irregular spark. That's normal for this engine and has to do with firing order and crank rotation.

4. Now that you're sure it's the vacuum operated fuel petcock, all that you have to do is think of the direction of fuel flow and disconnect and connect a couple of hoses seen in my crude diagram below.

5. Tools needed: a 5 and 10mm allen wrench, pliers to get the hose clamps loose. This plan was hatched with the help of my favorite tech: Remko Oosterhof at Condotta's Honda in Issaquah, Wa.

## A Few More Fuel Cock Suggestions

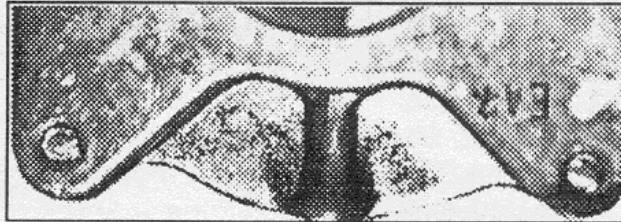
By W. Grant Norman, Texas

As Jim Flood mentioned in his article starting on page 10, I too have had fuel cock problems. Fortunately, my problems were resolved before I was stranded on a trip like

both Jim and Ross observed in their articles.

How did I avoid the total breakdown of the fuel cock? The picture below is a good warning sign.

At the base of the fuel cock, there is a little molded "weep hole." I'm not exactly sure of its design function, but a sharp mechanic, Paul at Cycle Sports Ltd. here in Houston, spotted gas seepage here when my ST had roughly 20,000 miles on it. Feeling the underside of the fuel cock with his finger, he actually found the gas dripping. I mentioned it to my Honda dealer and the service manager ordered a new one for me under warranty. He also allowed Paul at the independent shop to go ahead and install it rather than have me ride my ST to his own dealer service department with gas dripping.



**Brownish film build up around weep hole on lower portion of fuel cock indicates gas seepage and probable extra air being sucked in through the valve, which may cause rough running and also indicate a damaged fuel cock.**

That new fuel cock, pictured here, lasted for about another 60,000 miles. Then, I noticed the ST was starting to run rough and stumble periodically. (This was before I had received Ross King's article on bypassing the fuel cock, but after I had received Jim Flood's piece).

I checked the fuel cock as one of the first culprits, and sure enough, it had the seepage gas film as shown above.

Frustrated, for I was about to leave on a long trip, I started calling Honda dealers all over the country. None of them had the item in stock and I was quoted as low as \$99 and as high as \$130. Price didn't matter, because

what I was concerned about was how fast I could get it replaced, not how much.

Finally, I decided what is that dumb thing there for anyhow? Obviously, it has only one function – to shutoff the gas when the bike goes down because unlike "petcocks" on other motorcycles with "real" gas tanks above the engine, the ST's gas tank being below the engine needs no petcock. That is unless gravity goes up in your part of the world! So on going down, the fuel cock, aka AUTO SHUTOFF VALVE would stop the flow of gas to the engine.

Here's how it would work. With the engine running, an ST goes over. The tilt sensor unit, located under the clock inside the fairing trips and shuts down the electrics to the motor. This releases the vacuum which allows the fuel cock's diaphragm to close off the

fuel flow. Also, of course, in an engine-off drop over the gas would not flow either, since there would be no vacuum present to hold open the diaphragm.

Other than this, I see no real function of the fuel cock unless maybe you park your ST, front end pointed down on a steep hill with a full tank of gas, and even then, probably the full float bowls in the carburetors would keep the gas from dripping out. Point being, from an engine running point of view, the item is not needed.

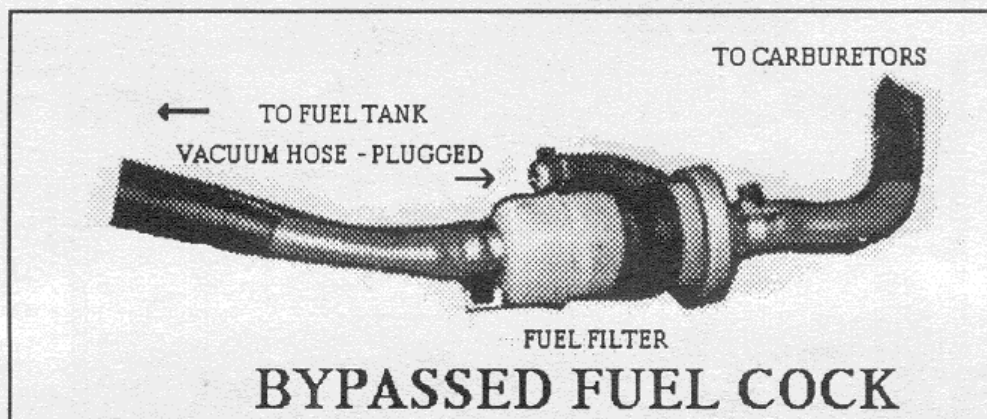
With this thinking, I decided rather than soak another \$100+ into an auto shutoff valve, I'd just bypass it. In fact, I completely removed it and tore it apart for the pictures in this issue. My ST has ran fine for several

thousand miles without the shutoff valve.

To bypass the auto shutoff valve, I simply removed the vacuum hose from the unit and plugged it with a screw so the ST wouldn't suck air through the hose. I next removed the hose between the fuel cock and the fuel filter, then removed the carb to fuel cock hose and connected it to the fuel filter. In less than five minutes the work was completed.

**WARNING:** As described above and in other articles in this issue, the fuel cock, aka auto shutoff valve, serves the function of shutting off the fuel to the ST1100 engine. This unit, in some situations, may be an extremely important

**s a f e t y**  
component. These articles are not suggesting in anyway that you should perform such a bypass function, and in no



way attempt to imply that. As with all reported experiences in the ST1100 Newsletter Magazine, the value of the information is for the reader to decide and any modification the reader makes to his own ST1100 is strictly with the knowledge that he or she is the only person liable for such modifications. These fuel cock modifications are presented as an information source to allow the reader to make an informed decision on potential emergency roadside repairs of his or her motorcycle. If you have any doubts, please discuss them with your authorized American Honda dealer before attempting these or any alterations to your motorcycle.

## Fox Shox

By Paul Taylor, Michigan

In a previous article, I described the modifications done to the fork of my ST1100 and the results. I felt the ST fork as delivered from Honda was too much in favor of touring comfort sport handling. The changes I made reversed that relationship. The front end of the ST with Noleen Racing fork mods is noticeably tauter and delivers more precise feedback.

It was my intention to change the rear suspension to an Ohlins shock. Noleen Racing is their USA distributor. Ohlins is regarded as world class in numerous magazine articles on suspension.

Why change shocks? The shock

absorber in an ideal situation compresses rapidly and smoothly to soak up bumps in the road surface. It decompresses by releasing the energy stored in the compressed spring. It should return to the original position rapidly and smoothly. It does this by damping the return using a series of valves and oil.

The best shocks provide adjustment of the three major elements in suspension mechanics.

**Preload:** the amount of tension placed on the spring in a static state, adjusted

by compressing the spring. On the ST1100's stock Showa, this is done through a stepped ramp with five possible tensioning positions.

**Rebound Damping:** controls how rapidly the shock will release the compressed spring's energy when returning to static position. On Showa, this second most critical item is tuned by four rebound damping positions using a screw adjuster at the top of the shock.

**Compression Damping:** is a fine tuning of the springs rate of compression. This is mostly controlled by selecting the proper spring when building the shock. Spring rate is a pretty gross kind of control so better shocks

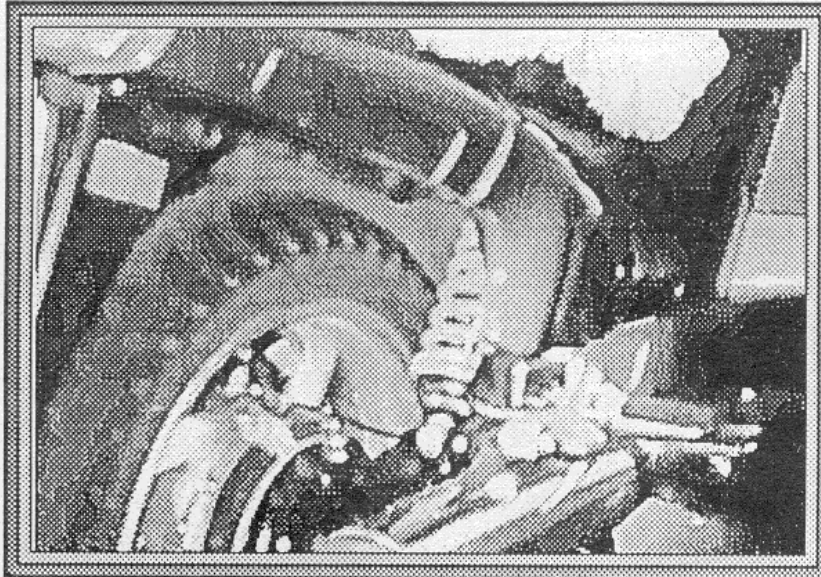
use a separate set of valves to dampen and further control the compression. The ST's stock Showa has no provision for user adjustment of compression dampening.

A premium shock will also have an oil reservoir. This allows for an increased amount of shock

oil in the system. Heat created by suspension action is dissipated in the shock oil. More oil means cooler operation and less break down of the oil's viscosity.

An after-market shock absorber can provide much greater tunability than the stock Showa, while at the same time, start out with a more sporting ride characteristic. This would allow me to set up the ST more to my liking and riding preference.

I ordered a shock from Noleen. Although they had never made a shock for the ST, they agreed to build a shock based on



the dimensions of the original Showa and my input on riding style and loading. I shipped Noleen the stock Showa and in 6 weeks Noleen returned the Showa and the new Ohlins.

Unfortunately, the Ohlins would not fit the ST. The difficulty lay in the means Honda used to attach the shock to the frame. Rather than a central mounting location, as used on most sport bikes, Honda, like BMW, chose to mount the shock between the swingarm and the frame rail. It's my belief that this was done to reduce drive shaft effect on the suspension. A gusseted slot attachment point in the upper frame requires an unusually long upper shock "head" to provide clearance between the frame and shock body. Noleen was sorry that they, without significant cost and engineering, couldn't make the shock fit.

Determined to pursue this, I next contacted Fox Racing Shox. Fox is also well regarded in the industry and they had already built a shock for the ST - one. I supplied Fox with my ride style and load information.

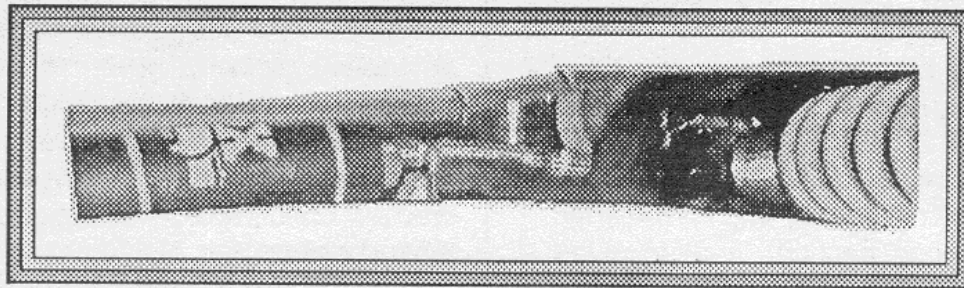
About five weeks later I received a call from Fox. The shock was finished but they wanted me to know they felt I may not be happy with it. They felt the fit of the shock to the bike was not ideal. The problem, according to Fox, was the ABS version of the ST had no room to mount the remote reservoir. This meant the appearance of the installation was going to be pretty unattractive. Fox assured me, however, that they would work with me to achieve a good fit and look.

The Fox shock's silver body was

screw threaded for a preload adjustment of about four inches. A blue, anodized twenty-four position rebound adjustment knob was located at the bottom of the shock shaft. A remote shock oil reservoir was connected to the shock by a twelve inch long braided steel hose, with an eight position compression adjustment knob located on the reservoir. The reservoir color matched the rebound knob and the shock spring was florescent orange. The upper attachment is via a Heim joint, a bushing with adjustment.

To check the fit of the shock, I removed the seat, the right side cover, and stock shock. Unlike the Ohlins unit, the Fox shock body easily fit at both top and bottom.

But the reservoir hose protruded up and away from the shock body. There was not enough clearance which meant about a five



**View of the reservoir up under the side flap where the right saddle bag attaches. The bag still attaches and Velcro holds the flap in place.**

inch loop of hose would be visible.

Fox offers a variety of hose fittings. After talking with their representative on the phone, I returned the shock for replacement fittings and change in the hose from body exit. I asked that they also flip-flop the reservoir hose so that the adjuster would be on the bottom when installed. Fox performed these changes and returned the shock in about two weeks.

The modified shock body was very close to fitting. It was a little tight between the hose fitting and the lower frame edge. I used hand files and in about thirty minutes the shock mounted at top and bottom with no interference.

Next, I covered the braided stainless reservoir hose. Stainless hose is extremely abrasive. Chafing will occur any place stainless hose rubs against paint, metal, or plastic. I used a length of polyethylene hose. I slit the hose lengthwise and used zip ties to secure it to the stainless line.

By far, the most difficult part of the installation was the mounting of the reservoir. This is not for the faint hearted. The problem, as mentioned, lies in the density of existing equipment on the ST coupled with the full coverage body work. There are not many choices for locating the reservoir. I chose to locate this unit in the space above the right saddle bags. This would provide a solid mounting location, access to the reservoir for the compression adjustment, and neat appearing finished job.

The first step was to cut away the fender lip above the saddle bags mounts. This lip is about 1 1/4" wide by 7" long. I used a hack saw blade for this. I then filed the rough edge. I removed the saddle bags flip up door on the rear section. This involved removing the spring and gently bowing the flap in the middle to release the flap from the main section. This part of the job took about forty-five minutes.

I loosely zip tied the shock to the frame and checked the clearance for the rear cover and for the saddle bags. The cover fit like a charm. The saddle bags were within a hair of fitting. Using a series of rasps and files, I removed a small amount of plastic from the lip of the saddle bags where it slides over the support, and slightly more material from the edge of the support. It took about an hour to achieve a good fit with adequate clearance.

The bolt that attaches the rear section to the frame protrudes below the threaded area. The interfered with the reservoir body. I used washers to space the bolt and to eliminate the interference. I used a small amount of contact cement to attach the provided rubber reservoir spacers to the

shock body. This provided spacing between the reservoir and the frame and fender. I used a small piece of old inner tube as a cushion between the reservoir body and the rear cover bolt through area. I secured the zip ties, snugging the reservoir against the fender and frame. With this the job was basically finished.

This installation does not permit the use of the right saddle bags flap in its original configuration. In order to use the flap, I used Velcro attached to both the back of the flap and the inside of the rear cover. With the bags off, the only appearance difference from the stock shock is the orange spring.

On the road, the Fox shock proves its worth. There is no sacrifice in the plushness and comfort from the Showa. But a couple of clicks here and there can change the ST from a touring sofa to a sporting tiger. It's surprising that the entire range of adjustment is usable. And even small changes are apparent. For those ST owners who desire the best handling the Fox Racing Shox shock absorber and the Noleen modified fork will make a marked difference in the bikes personality. The results were worth the work, the wait and the money. Also, Fox was very cooperative and helpful throughout. I certainly would recommend them as a supplier of quality motorcycle shock absorbers.

### **Suspension Companies**

**Fox Racing Shox**  
(408)365-9700

**Noleen Racing**  
(619)246-5000

**Progressive Suspension**  
(619)948-4012

**Works Performance**  
(818)701-1010



## Works Performance Shock

By Michael O. Gilliland, Texas

Like many motorcycle riders, I am inclined to think that I can improve Honda's already fine product. The more I do, though, the more I find out that significant improvements are hard to come by.

I have called several companies that produce suspension components over the past two years to see what was available for the ST1100. I called Fox, Progressive, Works Performance, and Noleen. Performance imports the Ohlins shock. I also called Lindeman Engineering who rework the standard shocks.

Lindeman Engineering change valving and rebuild shocks, as needed, for \$145.00. If a different spring is desired, this adds \$90.00. They also rebuild and revalve forks for \$105.00, plus parts as needed. Lindeman Engineering has done some shocks and forks on some magazine project bikes, and the reviews have been very good.

My calls to the shock manufacturers were all greeted with the comment that there wasn't enough demand for a shock for the ST1100 to justify production. Noleen's did say that if I sent them my shock that they could develop something for it.

At Daytona Beach last year, I happened to mention to Gil Vailencourt of Works Performance that I was interested in a shock for my ST. He informed me that they had just developed one. After I got home I called and had one built for me. All of their shocks are built to order.

For the ST, they had two models. Both were piggyback shocks. They differed only in that one had fixed dampening and only a preload that could be adjusted, whereas the more expensive model had adjustable compression and rebound adjustments. Being the sophisticated motorcycle

techno-weenie that I am, I, of course, ordered the one with all the bells and whistles included.

Initial delivery took 6-7 weeks. Apparently, an earthquake in California had kept one of their suppliers from delivering his product on time. Since each shock is custom built for a specific bike and rider, the person taking your order will ask all sorts of personal questions, such as your weight in riding gear, typical weight of any luggage, and if applicable, your passenger's weight and percentage of time you ride with a passenger.

Once the shock arrived, installation was simple, and everything fit without modification. I immediately could tell an improvement in the spring rate and the measured sag was right on target at between 25% to 33% of total travel. This gave a much more balanced feel between the front and rear of the bike.

I had previously replaced the stock fork springs with ones from Progressive Suspension with 10 wt. oil and 1 1/2 inch spacer. I was concerned, though, that my bike seemed to be pogoing when I hit a bump and no amount of damping adjustment seemed to improve things. After I finally convinced myself that something wasn't right, I called Works Performance, explained my problem and sent my shock back.

I got it back in about one week and the repair order indicated that during the initial assembly, an O ring had slipped and allowed the oil to bypass both the rebound and compression circuits. Once the correctly assembled shock was installed, I could tell an immediate improvement. My bike had about 25,000 miles on it when I replaced the shock.

I like the more controlled feel and the stiffer springs that these modifications provided. During the recent ride in the Texas Hill Country, I rode two up and was impressed with the lack of wallow, and it was even

difficult to tell my wife was even back there. The bike turned in and responded to direction changes without any hesitation or loose feeling. I think it has made a good handling bike even better.

Until I get a chance to ride another ST back-to-back over the same roads, both equipped with the same tires, I can only give you my subjective feelings. Also, the weather that weekend wasn't conducive to serious corner carving.

The costs for the two models of shock are about \$350.00 for the plain-jane version, and about \$440.00 for the one that has both rebound and compression adjustments available. Delivery time was quoted to me as two weeks, barring earthquakes and other natural disasters to which California seems to be prone to!

Is it worth it? Honda has done an outstanding job making a large bike handle extremely well. (Just ask anyone who has ever tried to follow Rock Rhodes, Brad Mobley, or Todd Nunnally on their ST's.)

Before I would ever spend money on a stock replacement shock from Honda, I would buy the Works shock in the flavor of your choice.

Apparently, the Honda shock costs \$450.00+ anyway. Is it worth replacing your shock on a low mileage bike? Probably not. I think a better investment may be a revalve job by Lindeman Engineering. This may provide similar improvements at less cost. Works probably uses a better quality shock body and parts that will hold up better, so in the long run, their shock may be a better investment as compared to a simple revalve job on your stock shock.

**Lindeman Engineering**  
(408)371-6151

**Works Performance**  
(818)701-1010

*Like many other items for the ST1100, suspension products are changing almost daily. Therefore, before making any choice in a new suspension product, you may wish to call all the vendors listed here, the ones listed on page 16, or page iv of the **STore Index**.*

*Another quick suspension change that can be tried at one of your regular service intervals is to switch to a little heavier fork oil. If you have had the feeling the front end of the ST is a little spongy, this little change alone may make a big difference to you.*

*Lastly, for an extensive article on testing your suspension, look to the March 1995 issue of **Motorcycle Consumer News**. If you are not a subscriber to MCN, you can call them at 800-735-9335.*

*If you make some personal suspension modifications to the ST1100 (or other changes), please document, photographs and drawings are appreciated, and send it to the **ST1100 Newsletter Magazine** to share with your fellow ST owners.*

*W. Grant Norman, Publisher*

**Submissions:** Submit material for consideration in neatly printed or type-written format. IBM compatible 3.5" disks are greatly appreciated in any popular Word Processor format. Macintosh format is also acceptable  
Mail to:

WG Norman

**ST1100 Newsletter Magazine**

PO Box 840566

Houston, TX 77284-0566

(713)463-3794, (713) 492-2729

Fax (713) 492-1382

CompuServe 72163,2245

## Portable, Low Cost Hand Heat

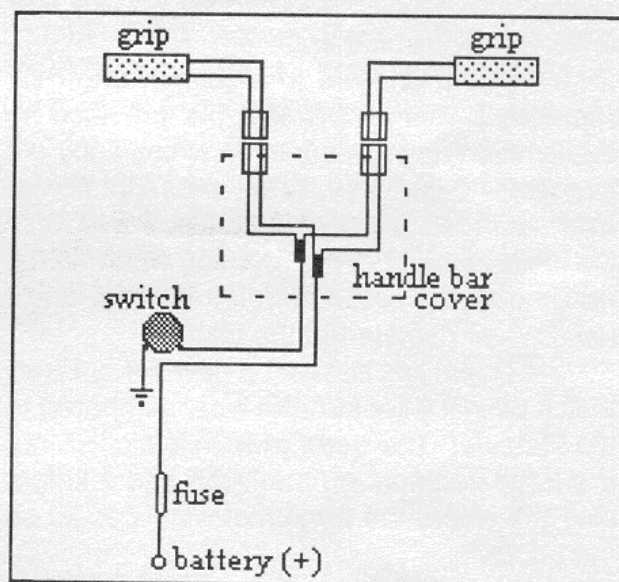
By David Kennedy, North Carolina

Frank Farnam of Farnam Custom Products, Inc. of Asheville, NC sells all kinds of heated products, as well as heated hand grips for motorcycles. I purchased a set of his velcro-on hand grips last winter and like them very much. These grips appealed to me because I like larger than stock handlebar grips and most of the after market heated grips were too small for my taste. I also didn't want to make the installation too permanent.

They were ordered with just wiring, without any switches or plugs installed, for \$29.95, plus \$2.00 for S&H. I installed a BMW accessory plug on the end of the wiring to mate up to the already installed BMW charger/accessory jack on my ST. I just twisted the wiring to hoses and cables and routed the wiring to the jack down along the left pocket fairing. They worked great, except without any control over the heat, they got hotter than a two dollar pistol. On the coldest days this was not a problem, but on a cool day when grip heat was desired, about every ten minutes or so I would have to take a hand off and let everything cool a bit.

In a recent effort to ready myself for winter, I modified the installation for heat control and for added ease of removing and installing the grips. A fused wire was routed from the battery along the left side wire bundle up to the handlebar area. Another wire from the handlebar area was routed back down to the area behind the small, black plastic baffle located just below the forward, left corner of the top cover. A resistor type switch was mounted to the plastic baffle piece and wiring connections were made to the switch. (I didn't really want to drill and/or cut up the expensive pieces of the bike anywhere to add a crude, automotive type switch.) The switch is actually

a heater blower speed control switch with four positions, off, low, med and high. Switches of this type are readily available at most auto parts stores. A set of two pin connectors (Radio Shack) were added to the wiring under the handlebar top cover, leaving enough wire so the connectors could be easily pulled out from under the cover to connect the grips. The two connectors are stowed under the edge of the handlebar cover with velcro. The wires on each grip were cut to length and the mating connectors for the two connectors under the handlebar cover were installed. Now when I want heat, I just pull the grips out of the saddle bag, velcro them on, pull out the connectors from under the cover and plug them in. The switch is not in a great place to turn on and off while riding, but it is out of the way and not in view.



Farnam Custom Products, Inc. is located at 19 Glenview Road, Asheville, NC 28804, or you can call 1-800-338-3974. As mentioned earlier, the grips with wiring only cost \$29.95, plus \$2.00 S&H. The grips with an installed, in-line on & off switch and quick disconnects cost \$39.00, plus \$2.00 for S&H.

## Rear Whining /Tire Wear

Rich Russell asks about 'rear end whine' when cornering at medium to high speed. In my experiences, the whine is due to abnormal tire wear. I will try to explain my reasons for this diagnosis. I have worn out three Metzeler ME55A Metronic rear tires, and found the same problem occurring with all three.

As the tire wears, the large segments of the side tread will 'scallop', wearing high on the front end of the segment, and low on the back. On my ST, I have found that this tire has a life of 6500-7500 miles, and from about 4000 miles the 'whine' is noticeable as the bike is leaned left or right whilst cornering, as the 'scalloped' segments of the tire contact the pavement. As the tire wear increases, the 'whine' gets louder, and can sound like rear drive failure is imminent.

I sent one tire to Metzeler, and they replaced it with a new one, but provided no explanation as to the uneven wear. They did suggest incorrect tire pressures, or overloading as a possible cause, but I check the tire pressures every morning when riding, keeping to the recommended 42 PSI, and I have never overloaded the bike.

I have just installed a new set of Pirelli Match tires. It will watch the wear compared to the Metzeler. The tread pattern is similar, but the large segment on the Pirelli has a longer slot in it where the abnormal wear occurs on the ME55A.

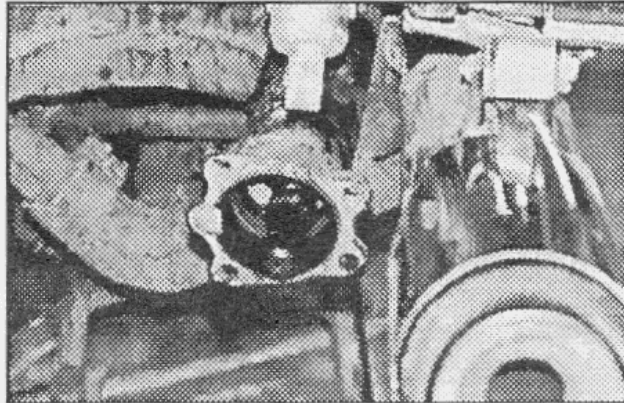
I would like to hear from other readers on rear tire wear problems, especially if it occurs with other brands of tire.

As a tip on the rear end though, I drop the rear wheel and grease the drive splines with lithium grease every 3000-4000 miles. It takes me about fifteen minutes, and could ultimately save an expensive rear drive repair.

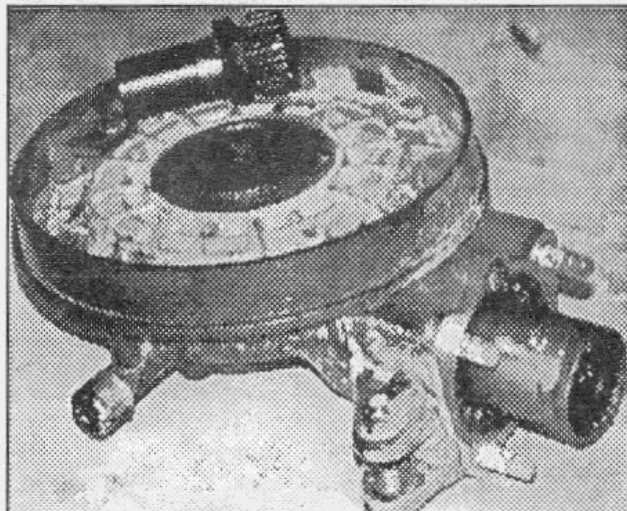
**Bob Crew, Ontario, Canada**

## Spline Greasing

I greased the rear end last week. The splines had not been touched in 24,000 miles. They looked fine - no twists, no powder, but the ones between the rear driving gear and the shaft looked dry.



I used Extreme High Pressure Moly Grease, available from your favorite auto parts store for \$2.00 for 4 oz.



Also I greased the studs on the rear pumpkin, the axle, shock bolt, rear brake bolt, and left swing arm pinch bolt. Corrosion on any of these just make the next time harder.

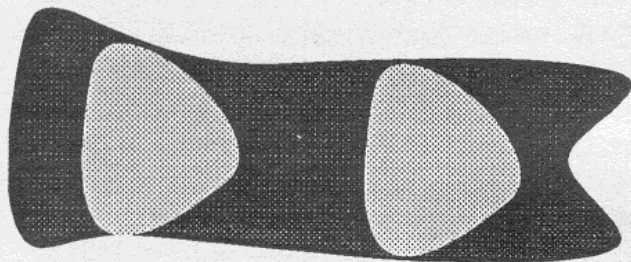
**George Catt, Illinois**

## No Seat Slip

I have a comfort tip for ST owners. The stock seat is very comfortable except the occupants can't keep from sliding forward, especially when braking.

I used a piece of "Scoot Guard," available at RV dealers and is used as shelf lining to prevent dishes, glasses, etc. from sliding around in motor homes and trailers. If two small pieces of triangularly cut Scoot Guard are placed between the riders and seat, you and your passenger will not slide.

It is unobtrusive if carefully cut and is comfortable even in summer. I feel, unlike the Corbin seat, the stock seat allows more movement and comfort.



Dennis Bauers, Illinois

## Speedometer Cable

Good to here from you, and the speedometer problem has been corrected. It turns out the speedometer flex-cable had broken, inside the shield, approximately 3 inches down from the speedometer right angle connection. Replacing the flex-cable and shield was a breeze as only two connections are involved. Removing the windshield and the plastic garnish associated was also easy.

Upon inspection of the broken

flex-cable I noticed the break was in the middle of a 2 inch rusted area.

When discussing this with the local Honda dealer he suggested I replace the flex-cable and not replace the shield. This apparently is standard practice due to the simplicity of removing only one screw (at the front wheel) pulling out the broken flex-cable, assuming both pieces come out, slipping in the new flex-cable and replacing the holding screw. The cost is approximately one quarter the flex-cable and shield price, \$4.00/\$16.00. After thinking about it I decided to replace the flex-cable and shield due to the rust still being in the shield.

Inserting a new lubricated flex-cable will not correct defects in the shield and therefore complete replacement is recommended. As of this writing it has not been determined how the rust occurred, and/or where the moisture might have come from. Reviewing the HONDA 1991, ST-1100 SERVICE MANUAL, I could not find a place where it recommended lubrication of the speedometer flex cable. There are two places in the service manual where the speedometer cable is mentioned, pages 1-21 and 19-8 neither associated with lubrication. If anything changes will update you .

Duane D. Adams, California

## Fan Watch

*From the March 1995 ATRALogic, newsletter for ASTRA, American Sport-Touring Rider's Association:*

ST1100 riders: If you haven't checked the cooling fan on your ST, *do it now!* I checked mine on Saturday and found them to be *very loose*. I know of one rider who lost all his coolant because the fan ate the radiator. This incident ruined a week long trip to New Orleans.

A single drop of red Loctite and a 10mm wrench will fix the condition before it becomes a problem. You must remove the radiator to get to the fan. If your ST is under warranty, make your dealer do it for you. It's already been found on 4 ST's that I know of. All had around 50K miles. From the INTERNET.

Jeff Adams, President of ASTRA, publishes a great monthly newsletter. A tip like this can be worth ten years of membership dues! For information on joining ASTRA, write:

**ASTRA**  
**PO Box 672051**  
**Marietta GA 30067-0035**  
**(404) 443-2614**  
**INTERNET: astra@info-gw.com**  
**INTERNET: jadams@is.net**

## Re-Entry Rider

I'm referred to as a re-entry motorcyclist. After a divorce from my wife of many years who detested motorcycles, I found myself free to get back into the sport. My son came home from Desert Storm and bought a fairly new 750 Honda Nighthawk. I rode his some and a month later bought my own.

We both went to the Safety Foundation Motorcycle Course to get refreshed in the basics. Good time spent for both of us. 5,000 miles and a year later, I was introduced to the ST1100. I found a "new" 1991 Silver ST1100 which has been my love ever since. I've had it about a year and have about 5,000 miles on it. Hoping for the time for some longer trips.

I spent the \$40 for the technical service manual. That's been a big help and if folks who own these machines haven't gotten the technical manual, they should. Not only

do you get all the specifics, you also get a good dose of help with basics.

Particularly helpful to me was dismantling the cowling in order to install knee pads. Fast breaking was driving my knees into the front back surface of the cowling. Prices varied widely, but I finally got a set for about \$40 from my Honda dealer. For the '91, its referred to as a Knee Pad Kit P/N 08P59-MT3-A10. I'd be surprised if it didn't fit other model years. Its been a real help in keeping the knees from getting too banged and adds a subtle touch to the looks of the machine that I like.

The hands have been helped with some Johar soft grips from Dennis Kirk catalog, part number 59-476. Parts were \$4.99, but with shipping came to \$9.49. Still reasonable for the improvement with the grip.

I installed a nylon cruise control, Model CC-3, which has been helpful when I've needed to free up the right hand for brief periods of time. I drilled a hole in the right side cowling while it was off in order to get to the dampening adjustment on the shock without having to remove the cowling.

I had a magnetic bag with my Honda Nighthawk which had a steel tank. I converted it for the ST1100 by removing the magnets with a utility knife cut perpendicular to the magnet at the middle of each magnet. The material stretches just enough to allow you to remove the magnet and I expect to be able to restore the magnets by simply slipping them back into the pockets should the need arise. I used a bent coat hanger to bring the forward lead around the forks and just set the strap through the loop, leaving the disconnect plastic piece ready to connect to the bag. I took the bag to a canvas shop and asked them to sew some 3" wide strap (about 12" long) to the rear end of the bag's hand carry strap. Now I've got the bag connected to the lead with this strap trailing towards the rider. I took the adjustment buckle to the strap and adjusted the length to where the adjustment

buckle just fits into the underside of the gas tank cover after disconnecting the bag and flopping it topside down on the seat. I lock the gas tank cover, return the bag to the correct position and engage the forward locking piece. The bag doesn't move. I haven't had to drill any holes. And, the bag looks like its locked into place which might dissuade a few people from trying to make off with my bag when I've gone in for a cup of coffee somewhere.

I've hidden an extra key on the bike for the day when I can't find my keys and me and the bike are far from home.

The wind noise is noticeable but I accept it as part of what I want to be doing when I ride. I pay particular attention to the air pressure in my tires as I expect there is a slow leak through these rims.

I try to keep this bike clean. Florida has plenty of bugs. I clean the bike when I get back so the bug's acid doesn't have a chance to do me in. I've particularly liked using Johnsons Pledge as a coating for the painted surfaces. I also try to keep the black plastic Armorall frequently to keep the sheen and the flexibility, being sure to avoid the tires and the seat.

One hint for those who haven't experienced pulling all of the cowling off and returning it to its proper position. During the reassembly don't use the slightest force on any of it. If you have to use any kind of force, you simply haven't yet lined the cowling up properly. It will line up properly and the bolts and the plastic bolts will fall into place. It is not a job to be rushed.

I've ordered replacement plastic bolts (2 sizes involved) for the next assembly as I don't think these plastic connectors are much at repeated applications.

For warm weather gloves, with fingertips cut out, try a pair of Lee Haney weight-lifting gloves. They are available at most sports merchandise stores for less than \$20. They have a length of leather at the wrist that wraps about twice and then velcros

to a close. Provides a maximum amount of wrist support which just might make the difference in a spill.

Now that I've got these miles underneath me with this machine, I'm heading back to motorcycle school for the advanced course and a refresher for the defensive driving techniques that keep me alive. Great way to meet other bikers. Who knows, I might even meet another ST1100 owner.

My thanks to all who have contributed to the newsletter. Somehow getting the information from interested riders seems more reliable than some off the wall comment from a motorcycle magazine that may not have his or her heart and soul in it.

**Richard H. May, Florida**

*Thanks for all the good suggestions – I especially like your repeated MSF course recommendations – Helen and I are trying to take the course at least once a year and I just paid for my college daughter to take it last month – a helmet offers very little protection if what's inside it doesn't know what to do in an emergency!*

## The Future is Plastics

My hat is off to Honda and the ST1100 after 30,000 miles through British Columbia, Alberta, Montana, Wyoming, Idaho, Oregon and Washington.

The ST is a confident and nimble mover in city traffic, on the freeway or in back country twisties. Maintenance and cleaning is a snap compared to all those hours of picking and pulling rags through endless pipes and channels on other bikes I've owned.

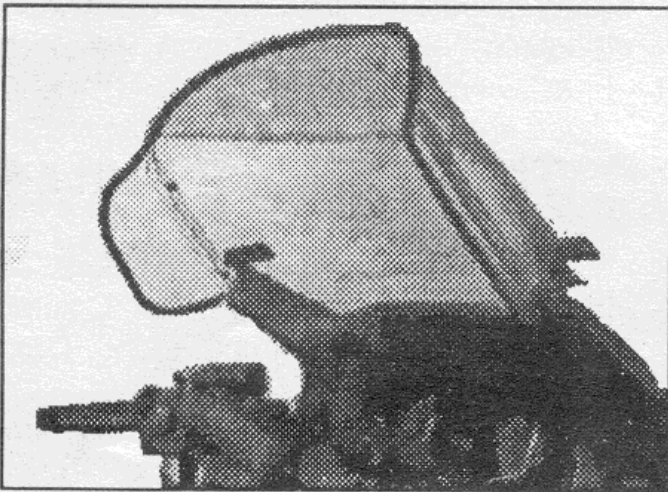
The aerodynamic fairing provides good bad-weather protection yet the wind is still there – a beautiful balance of in and out. The 28-liter fuel supply and low tank placement is

one of the best features. It's relaxing to ride the long haul and not be always looking for gas stations. Adding a Corbin seat (rumble seat) and taller Rifle wind screen have increased comfort and weather protection.

Since fabricating plastics has been my job for the past 20 years, I have designed and built several things that may interest other ST owners.

I made up a pair of acrylic wings that blend into the Rifle screen and are bolted on with stainless machine screws with acorn nuts. The slight outward cant is effective in lightening air flow at shoulder level. The black edge trim ties the screen and wings into the black fairing.

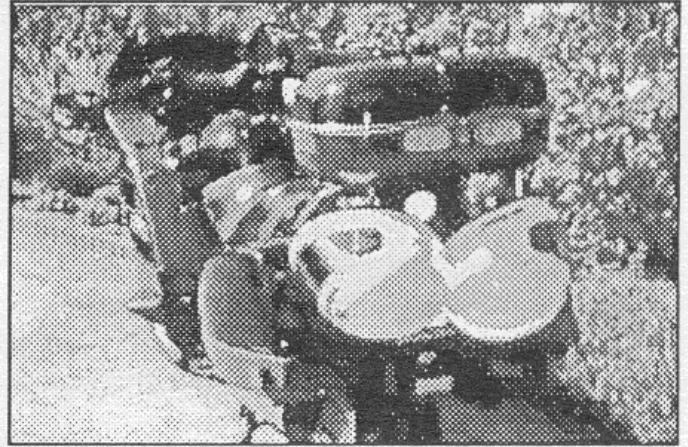
Another great add-on is a fiberglass tour pack. It has about the same volume as one side bag, is aerodynamic, waterproof and design compatible with black top and grey bottom. The rack that this pack attaches to is 1/4" aluminum plate black powder coated and fastened with stainless flat head bolts and spacing collars in the four existing hand grip



holders. The holes around the rack's perimeter makes bungy fastening convenient when the tour pack is not being used.

The tour pack is fixed to the rack by two stainless 3/8" bolts threaded through the rack. These bolt ends are covered with black vinyl caps when the pack is removed. Two

wing nuts hold the pack securely in place, yet make removal easy.



Two stainless eye bolts located at the rear back and bottom of the tour pack provide Gold Wing-like helmet lock points. Also, a high level brake light is built into the tour pack for greater visibility in traffic when braking.

Another addition is a marine type electrical accessory receptacle with weather proof cap placed just below the left fairing pocket. This makes for very convenient electric vest connection.

The only other addition to my ST is a pair of black deer whistles mounted on inverted black L brackets by both top wind screen fastening screws.

The ST has ample carrying capacity for a refined packer one up or two up. The smooth shifting, gear ratio and power reserve that this machine has blended, never ceases to amaze me.

Since I first saw the ST 1100 in 1991 and a wise dealer said "try it", the smile has never left my face. The only negative feeling I've had was due to my mistake. Parking up to a building nose in and down hill on gravel – a lesson learned. The team that designed the ST 1100 for Honda did a superb job – a delightful machine!

**Don Elder, British Columbia, Canada**



## Ear Protection

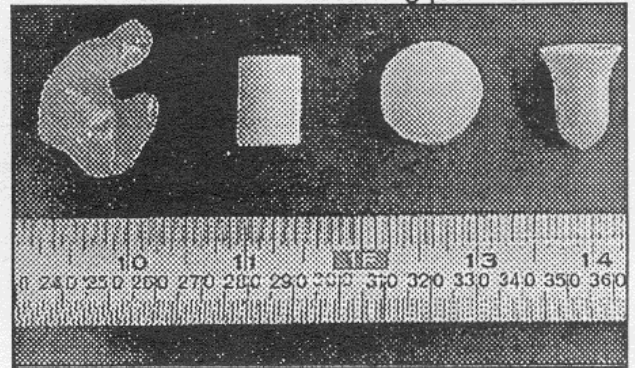
By Damon Arber, Ontario Canada

I've been deaf in one ear for as long as I can remember. As a youngster I wasn't concerned with the knowledge that I only have hearing in one ear but have become increasingly conscious of this the older I get. Since returning to motor cycling some half dozen years ago I've been very aware of the potential for permanent hearing damage from wind noise.

While this was a problem with the Suzuki standard I first rode I find it's much more of one with the ST. The standard wind screen on the ST is a factor, throwing a blast of wind at my helmet as it does. I have given thought to fitting something like a Rifle screen but don't like riding in the pocket of still air it creates, especially when the ambient temperature is in the 80s or higher. Also I quite like the look of the OE screen, it 'fits'. Instead I fitted Stealth edging by SAENG. This has made an enormous difference but hasn't fully solved the problem. I also got the SAENG winglets which I understand will throw the wind a further few inches upwards, but to date I haven't been able to work out the fitting instructions, I'm a banker not a mechanical engineer, changing a tap washer is a challenge. I'll work it out though, never fear, by next spring when I 'de-winterize' the ST I'll have them fitted just a treat.

To protect my hearing therefore I always wear an ear plug and am always on the lookout for the 'perfect' plug. To be effective a plug has to reduce wind noise considerably, be sufficiently comfortable to be worn for many hours and days at a stretch, and to be easily inserted and removed. I have found that the most effective stop against noise is a custom, molded, plastic plug that you can get made at any of the hearing aid centers. These work very well for

noise abatement and I always wear one when I'm using power tools, but under a helmet it becomes extremely uncomfortable after a fairly short time. Also inserting and extracting it a number of times in a day soon makes the ear canal too sore to allow me to wear it. I tried the yellow, foam E.A.R plugs used by the construction industry, these seem to be the ones most often recommended, but again I found they get uncomfortable under a helmet and I can't wear them for long periods.



I have found two alternatives, both of which are acceptable in that they meet the above criteria. SPEEDO make a silicon plug that is easily molded to fit the shape of the entrance to the ear canal. These come in packets of four, cost about \$3.00 and can be obtained at any decent sporting goods store.

I find that one plug will last me up to three weeks of frequent use before it loses its adhesive quality and has to be changed. I have never found them becoming uncomfortable since they aren't actually put into the ear canal but jam the entrance instead. These are my fall-back when my personal favorites start to bother me.

My favorite plug is the MAX made by Howard Leight Industries, they are orange colored, foam and shaped to fit into the ear canal. Roll them between finger and thumb to make them slimmer, slip them into the canal and wait ten seconds for them to expand again, and presto. I find they are comfortable for hours of riding, are reasonably effective and can be inserted and retrieved

easily. Though they do lose their elasticity after some time and have to be discarded, I find they also last about three weeks. There are two drawbacks with them, after many days of extended use the ear becomes too sore for them, but that takes about five, six days of four to six hours of wearing, and the ear soon recovers enough to use them again.

Also the transition from comfortable to not is quite rapid so you aren't faced with 'putting up' with some discomfort. The other problem is their availability – or lack of it, I have only been able to find them at major rallies, where they cost 50 cents for a packet of two. At the last one I attended I bought ten packets of two, that will give me a supply for at least one season

I use the MAX plugs almost exclusively on day or weekend trips. For longer journeys, like our last 10 day jaunt to the Blue Ridge and Deals Gap, I use the MAX plugs for the first five or six days, then when they get too uncomfortable I switch to the SPEEDO. Not ideal, I don't think there is an ideal solution and won't be until the helmet manufacturers become more responsible in this matter. But this is an option I can live with and feel that I can protect my hearing while enjoying riding. One advantage of only having one working ear is that packets of earplugs, of whatever style, last twice as long as they would if I had two good ears, since I only need one at a time. There's always some form of silver lining! Now if only the helmet manufacturers would address this problem!

## Stealthy Detector

By Rock Rhoades, Texas

By now you know that I ride just a teensy bit faster than most of the traffic around me. Seriously, though, even when I'm not riding hard, I tend to prefer moving slightly

(1–5 mph) faster than traffic, because this makes most threats "approach" from the front. The obvious drawback to this tactic is that I'm at slightly higher risk of being tagged by those who collect revenues based on speedometer readings.

The most popular aid in avoiding these tax-collectors-wearing-bubble-gum – machines is the radar detector, but there are precious few of these that will stand up to the environmental stresses imposed by use on a motorcycle. Will it stand up to vibration, noise, water? Can you hear it, and/or does it have an earphone jack? Will it pick up X, K, Ka, laser? Where can it be mounted? Is it secure, or must you remove it every time you dismount?

I tried a small Uniden detector and mounted it with velcro to the top of the dash, looking through the windscreen, but it disrupted the airflow coming through the pressure-balance slot, causing cockpit turbulence. I could barely hear it, its lights were invisible in bright sunlight, I had to remove it whenever there was moisture in the air, and it was a minor hassle to remove and install it every time I got on the bike. I wanted something better.

No radar detector available addresses every possible shortcoming, so I took a hard look at what compromises I could make and still get the performance, protection, reliability, and convenience I wanted. Laser speed detection equipment is still not very widespread, laser detectors must be mounted where they can "see" the road ahead, and riding a black motorcycle makes laser about 80% ineffective anyway, so I decided I could live without that capability. Ka band (photo) radar's characteristics (very narrow, low-power beam) make radar detectors almost useless against it (the detector doesn't beep until you're already in the beam), and it is only used in a few locales, so Ka capability also fell out of the "need" category. Needing weather protection and desiring a permanent

installation made remote-type detectors preferable.

After extensive market research and considerable confusion and consternation, I met a guy who had a "Liberty" radar detector that was **DESIGNED FOR MOTORCYCLES!** It was a Whistler remote-receiver-style K/X model, was completely weatherproof, had an earphone jack, and had a speaker that could be heard even at speed (100dB!). In short, it had everything that was on my "need" list, so I spent the \$108 and got one (Controlonics Corp., Five Lyberty Way, Westford, MA 01886, phone 508-692-3000).

I modified the receiver bracket and used radiator clamps to mount it to the subframe inboard of the right rearview mirror (the plastic fairing is transparent to radar). I mounted the control head on the same velcro strip I had used with the Uniden. I tapped into an ignition-controlled power lead behind the fuse panel and wired everything up.

The detector performed very well, but I had the same problem with cockpit turbulence as with the Uniden. In the rain, it directed water straight onto my face shield. In addition, the control head made it very obvious that there was a radar detector on board, a trait that bothered me when leaving the bike parked anywhere out of sight. OK, so much for proof of principle, now let's do this right.

The control head is a small box containing a single LED light (like those blinking, burglar-alarm lights on car dashes), a speaker, a three-position power switch, a headphone jack, and a small circuit board. Using a soldering iron and de-soldering braid, I disconnected the light, speaker, and headphone jack from the circuit board. Laying out the pieces in the desired locations on the ST's dash, I measured wire run distances, then reconnected the light, speaker, and jack to the circuit board using the appropriate-length wire. I ran the earphone jack wires to the rear of the bike and capped them; I will at

some point in the future tie them into a stereo/intercom system. I drilled a hole and installed the light just to the left of the fuel gauge. Using a Dremel tool, I cut small slots into the ST's dash just to the lower right of the tach and mounted the speaker from behind. I mounted the circuit board to the rear of the fairing piece above the headlight adjuster knob so that the control switch protruded facing downward and was inconspicuous.

Now I've got radar detection that I never even have to think about. It's always there, comes on with the ignition switch, can be heard even when playing music in my helmet headset, and is quite invisible. Now this is more like it!

The unfortunate news is that this model is being discontinued. They still have several left in the warehouse, but if you want one you'd better get it now. Good luck!

## Heli-Modified Bars

By Lucas Fernandez, Connecticut

The Honda ST 1100 is considered by many to be one of the best, if not the best sport-tourer machine today. Having said that, I was a little disappointed, especially at first. I was unable to ride comfortably on this bike for more than ninety minutes. My short arms (height 5' 6") pulled me right up against the tank when trying to keep my back straight. If I wanted to sit on the wider part of the seat my back would be arched... you get the picture. My neck was not doing too good either.

I called **Heli Modified, 800-859-4642**, to get the release date of their new Multi-Tour Sport™ ST1100 bars. They're now available! This handle bar system consists of five separate pieces. The horizontal bar controls the angle on the risers (45 degrees recommended). There are two

clamps, one at each end of the bar where the two vertical risers are clamped on. There you can control how high you want the bars and also how much you rotate them inward or outward, which will result in narrower or wider bars. Also, at the top of each riser there is another clamp where the handgrip tube is held. This clamp is used to set the up/down adjustment on each individual handgrip.

It took me a couple of hours to finish the job. My very small CB (3x2x1 inches) is strapped to the top of the clutch reservoir and this created a delay. (I will describe the world's smallest CB radio for the ST in another article.) If you want to use these bars to their full height I recommend that you contact the manufacturer. I re-routed the clutch hose and choke cable because I found them to be short when swinging the steering to a full right. This hose and cable normally come out from the front of the steering triple clamp. I passed them between the steering head and the left suspension cartridge; now they come out by the back side of the triple clamp. I did not have to disconnect the hose from the clutch master cylinder when changing its path by being patient and taking my time.

What does all this mean to me? My controls are now about two inches higher and one inch back. Just what the doctor ordered. The combination of a more comfortable seat (Corbin) and these new bars have made this bike fit me perfect. The bars have also enhanced my confidence and control of this motorcycle without taking away from its sport character. These bars are very well finished in black with two nice silver caps on the part of the risers facing you. The original plastic handle bar cover is not used along with this system. I suppose it could be a disadvantage for some if you want the bike to look stock.

The bars for the ST go for \$219 plus shipping and there seems to be a bit of a wait, about two weeks after you order.

*Additional reader comments on the Heli-Modified Multi-Tour Sport™ bars:*

What a great product! I previously owned a 86 Magana...the change from cruiser to ST1100 had me doubting my purchase until I installed the Heli Bars. Now I am good to go all day!

**Jason Landau, New Jersey**

I recently installed the Heli Bars.. I enjoy long trips with my wife and find that when my posture is upright and straight back I can spend hours on the road and not have back pain.

**Ron Harlow, Massachusetts**

The Heli Bars are an example of excellent workmanship. The finish is a smooth high gloss black. Two hex tools are provided....With the Heli Bars and the TBR canisters, I don't expect anyone again to ask "Is that a Pacific Coast?"

**David Guevremont, Tennessee**

Installation easy...good range of adjustment.

**Lynn Sherrill, Kentucky**

They do seem to be of excellent quality...I asked them if they could anodize the 2" disks black also when ordering...they said okay and did so.... great, looks much better!

**Whit Brown, Colorado**

*Virtually all comments on the Heli Bars were positive. If you're considering the bars but would like to test them first, see page 3 of this issue about the new "Check It Out" program!*

# STore Index

## to the ST1100 Magazine

Winter 1995

STore Index to the ST1100 Magazine

Page i

### New Name For ST1100 Newsletter

As you can see by the index on page iii of this **STore Index to The ST1100 Magazine**, the number of different topics covered by the publication is growing at a phenomenal rate. So is the number of subscribers. About 500% growth in 1994.

The magazine averages 24-28 pages. That's why the term "newsletter" is being dropped from the name. If you have still not subscribed, consider it now. For a limited time - through June 1, 1995, each new subscriber will receive a free disk with a software program that calculates valve shim thickness for the ST1100 (or other shim under bucket engines). Also, for a limited time, you can purchase the **Complete ST** for \$50.00, which gives you a binder with all the 1993 and 1994 issues. Lastly, the new **Sport Tour Reader** has been published and a sample of issue number 1 is available for \$1.00 postage.

### Ride For Kids 1995 Schedule

The **Pediatric Brain Tumor Foundation of the United States** has released its 1995 ride schedule. All monies collected go to the research of pediatric brain tumors. A *very* worthy cause.

April 23	Houston, TX
May 7	Dana Point, CA
June 4	Atlanta, GA
June 24	Asheville, NC
July 9	Oakbrook, IL
July 29	Marysville, OH
August 13	Harriman, NY
August 27	Ann Arbor, MI
September 10	Monroe, WA
September 17	Columbia, MD
October 22	Vallejo, CA

For a fund raising kit, please call:  
**(404)449-0789.**

# Sport Tour Reader

An exciting new publication from WG Norman, *Sport Tour Reader*, premiered in March 1995. The quarterly publication features articles, short stories, and essays about the thoughts, images, and *life* as a motorcyclist.

Where virtually all motorcycle publications concentrate on the "nuts and bolts" of motorcycles and equipment, the focus of *Sport Tour Reader* is on what's under the helmet. This is the "Table of Contents" from that premiere issue. Special charter subscription available for \$18.00. Submit articles/stories to address on page iv.

## Sport Tour Reader

### Table of Contents

<i>What is the Essence of Motorcycling?</i> Paul Cain	Page 4
<i>To Pozo We Gozo</i> Russ Madsen	Page 7
<i>Confessions of a Man with Tools</i> Dave Gorham	Page 8
<i>Blue Ridge Traveler</i> Paul Taylor	Page 10
<i>Blue Balls to Bultaco</i> W. Grant Norman	Page 19

*Sport Tour Reader* is published 4 times per year by WG Norman Publishing. Single issue \$8.00. Regular subscription rate is \$24.00 for four issues, USA, Canada, Mexico. All others \$40.00 per year. Please make all funds payable to WG Norman, in US funds only.

Copyright 1995

ABS .....	4-6, 15	HSTA .....	2, 6, 7
auto shutoff .....	13	Johar .....	22
axle .....	20	key .....	23
back rest .....	3	knee pad .....	22
bags .....	3, 16	library .....	3
bars .....	3, 27, 28	loan .....	3
battery .....	6, 19	luggage rack .....	3
bearings .....	3, 6	luggage .....	3, 17
BMW .....	8, 15, 19	master cylinder .....	5, 28
brake .....	4, 5, 20, 24	Metzeler .....	20
BrakeSafe .....	4, 5	mileage .....	18
bulb .....	7	mirror .....	6, 27
bypass .....	13, 17	Motorcyclist .....	22
carburetors .....	10, 12, 13	MSF .....	23
CB .....	28	oil .....	4, 6, 14, 15, 17, 18
cleaner .....	10, 11	Pirelli .....	20
Complete ST .....	2	plastic .....	10, 16, 19, 21-23, 25, 27, 28
computer .....	5, 11	Progressive .....	16, 17
coolant .....	21	psi .....	20
Corbin .....	3, 21, 24, 28	rack .....	3, 24
cover .....	2, 6, 10-12, 15, 16, 19, 23, 28	radar .....	26, 27
cupping .....	6	radio .....	3, 19, 28
Cycle Sports .....	12	Rider .....	2, 10, 17, 21, 22
dealers .....	3, 12, 21	Rifle .....	3, 24, 25
ear protection .....	25	risers .....	3, 27, 28
exhaust .....	3, 7	roller bearings .....	6
fairing .....	3, 6, 7, 13, 19, 23, 24, 27	Saeng .....	3, 25
fan .....	10, 21, 22	safety .....	4, 5, 10, 13, 22
FIAMM .....	7	shocks .....	7, 14, 17
filter .....	6, 8, 10, 12, 13	spline .....	20
flasher .....	7	Sport Tour Reader .....	2
fork .....	14, 16-18	steering .....	3, 6, 28
Fox .....	7, 14-17	Super Brace .....	7
front end .....	13, 14, 18, 20	tank .....	3, 12, 13, 22, 23, 27
fuel cock .....	8, 10-13	tire .....	6, 20
gear .....	17, 20, 24	tires .....	3, 18, 20, 23
greasing .....	20	triple clamp .....	28
grips .....	19, 22	Two Brothers Racing .....	7, 28
hand grip .....	24	valves .....	14
hand heat .....	19	velcro .....	15, 16, 19, 26, 27
headlight .....	6, 27	vibration .....	26
Heli-Modified .....	3, 27, 28	wheel bearings .....	6
Honda Sport Touring .....	2	whining .....	20
Honda .....	2-4, 6-8, 10-15, 18, 21-24, 27	windscreen .....	1, 3, 21, 26
Hondaline .....	3	Works Performance .....	7, 16-18
horn .....	7		

## Clubs

### Honda Sport Touring Association (HSTA)

9310 167th Ave NE  
Redmond, Washington 98052-3739  
Elbert E. Silbaugh, Membership Director  
(206)882-0224

### American Sport Touring Rider's Association (ASTRA)

PO Box 672051  
Marietta, Georgia 30067-0035  
Jeff Adams, President  
(404)443-2614

### Sport Touring Riders Club of Colorado (STRCC)

2006 Capulin Drive  
Colorado Springs, Colorado 80910  
B.J. Ondo, Director  
(719)635-3719

### Honda Riders Club of America

4040 Mystic Valley Parkway  
Boston, MA 02155-6918  
(800) 847-4722

**Submissions:** Please submit material for consideration in neatly printed or type-written format. IBM compatible 3.5" disks are greatly appreciated in Word Perfect or any popular Word Processor format.

Mail to:

WG Norman

ST1100 Magazine / STore Index

PO Box 840566

Houston, TX 77284-0566

Voice (713)463-3794, (713) 492-2729

Fax (713) 492-1382

Compuserve 72163,2245

## Suspension Companies

### Fox Racing Shox

3610 Snell Ave  
San Jose, California 95136  
(408)365-9700

### Lindeman Engineering

520 McGlincey Lane, Unit 3  
Campbell California 95008  
(408)371-6151

### Noleen Racing

16276 Koala Road  
Adelanto, California 92301  
(619)246-5000

### Progressive Suspension

1129 G Ave  
Hesperia, California 92345  
(619)948-4012

### Works Performance

8730 Shirley Ave.  
Northridge, California 91324  
(818)701-1010

*Two Brothers Racing*



**TBR**

- Slip-on exhaust system
- Goodridge Stainless Steel brake lines

**714-832-5504**