## HAWKWORKS

## V5/ISSUE 4 September/October 1997

BY ROBERT PANDYA

## UNDRESSED

You were teased with a shot of Phil White's Duhawki on the back cover of the last issue. It's time to dig a little deeper into a bike that walks the line between Italian chic and Japanese function. I've raced Phil for the past couple years - or should I say that I've had a great view as he blows past me on the track. He evaded my constant badgering for details on his bike until the end of the season. Proprietary information donchaknow.

Phil is a pilot with American Airlines, and if their planes are as clean and well maintained as Phil's bike, there really IS something special in the air. Being a superficial male myself - I'll start with the body. The top fairing section is a standard 916 race fairing mounted on a Graves 916 race fairing stay (holding up an Autometer tach) that is bolted to an adapter mounted
to the Hawk frame. The side panels were extensively modified to fit the Hawk. Over $\$ 500$ alone went into tweaking the glass to fit. The resulting pieces are flawless as they wrap Honda components in Italian style. Sort of like a Samurai warrior in an Armani tux. Deadly combination.

When the RC 30 tail is removed, it shows off a whisper thin, homemade subframe that keeps Phil's butt off the Michelin race slick mounted to the VFR 5-spoke rear wheel. The fairing is held off the ground with a set of F3 forks up front and a Fox Twin-Clicker shock on the rear. Both front and rear suspenders were modified with top shelf stuff from Race Tech including Ultraslick fluid and Teflon coated slider bushings. The front sliders were anodized - just 'cuz it looks good, and a carbon fender
keeps the Texas pebbles from chipping the Ducati Red paint. The stock F3 rotors get intimate with Ferodo Red pads lovingly compressed by the stock F3 calipers.

The hidden highlight of this sex machine (shut yo mouth!) is its lungs. The motor has been very, very massaged. Nothing way out of the ordinary, but every detail inside the motor was given as much attention as the body. A new stock crank was lightened, balanced, polished and knife-edged by Costa Mesa. Crower titanium rods pump through a stock stroke connecting the 6 mm over Weisco piston set. Those big slugs require an 85 mm bore giving the bike a healthy 748 cc displacement.

Continued on page 3

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Hawk Bits. $\qquad$


Bob Dickey is one nice guy. When he would blow by me at the apex of a comer he always left me plenty of room. When he would wave at me on the straights it was never with just one finger. When he would visit me in the pits he would never flash his Drivers License at me to confirm that he was 30 years my senior and has forgotten more about motorcycle roadracing than I'll learn. Nice guy - really.

Unfortunately bad things happen to nice guys too. Bob crashed his Hawk a couple times this season, once in a race and again while practicing after he made the bike quicker lighter and tricker after that first wreck smooshed many pieces. He called the other day with some sad news. After a conversation with his doctor, he's decided to stop racing bikes. Seems that his hip joints don't reglue themselves as quickly as used to.

To turn a negative into a positive he had an amazing proposal. He writes; "Robert, Here's the deal: New Vanson custom leathers to fit my $38^{\prime \prime}, 5^{\prime} 10^{\prime \prime}$ body, AGV 582 boots size 7.5, Dainese articulated back protector and Camel Half-back drinking thingy. Put 'em up for auction in Hawkworks, take the proceeds and establish a fund for aspiring/damaged Hawk racers. How you administer the funds, amounts, etc., is up to you. I believe that you have a good heart and will do this right. I know it isn't a lot, but, as we all remember, every little bit helps. Why? Because I love this sport and these bikes. I want to repay some of the tremendous joy and friendships I have gotten from 27 years of road racing."

Bob started racing in the 70 's on a Dunstall Norton, and a RD 350 . He promoted road racing through writing for

Cycle News Central (out of Austin, TX), battling through the constant motocross coverage. He's raced a GS750B, an R65 and retired with a couple championships and a new wife. He returned to racing after helping a friends' son put together a D Production class Hawk in ' 94.
"Harry wanted to race an F2 in '95 and I had been bitten once again so I rebuilt his Hawk into a rolling two brother's catalog. Craig had been helping us out some at that point and was still in his nice guy mode. I had a ball in my first Novice year although I didn't finish building the bike until the 3 rd or 4 th race of the season. In ` 96 , we built a second Hawk for endurance racing and I made the big Hawk bigger and badder until I blew her up. After that, I sprinted the endurance Hawk."
"This donation is my way of saying thanks to all of those I have been privileged to race with, camp with, pit with and travel with. Thanks to all of you who love the Hawk for so many different reasons. Thanks for the advice and tips from the Hawk GT list. Thanks for the humor and the quips. Thanks for the dedication, the camaraderie and the loyalty. Thanks for some great years."

He's not going to be on the track, but he's going to help Hawk racers to the tune of $\$ 100$ max per novice Hawk racer. We won't be distributing the moolah 'till after we sell this stuff - so don't put on the knee pads yet. We're taking blind bids now. The Bob Dickey Hawk Fund has been established. It's up to you readers to make it worthy of his name. Didn't I tell you he's a nice guy?

The unsuspecting atmosphere is sucked through a set of Keihn FCR flatslides, or a set of HRC'ed stock carbs ( 185 mains-yeesh!), then through heavily re-shaped, ported, and polished heads. 2 mm oversized intake valves, (titanium, natch') restrained by titanium keepers and RD springs introduce the mixture into the 11.1:1 compression ratio squeeze box. Megacycle cams (X2's for long tracks and an X8's for short ones) featuring slotted cam gears smack the valves around, helping force a couple big bangs with the waste gasses puked through stock exhaust valves and an MVR pipe that was matched via Dremel tool to the modified exhaust ports.

A Two Brothers adjustable ignition advancer is retarded a bit due to the high compression motor that spins with but all but a fraction of the old flywheel shaved off. The remaining saucer of metal is kept as a harmonic balancer. The front cylinder breathing port was opened up to lower the crankcase pressure, a couple one-way check valves are mounted to keep the internal pressure down. Insurance comes to play at many levels - starting at the bottom of the sump in this case. Phil fashioned a magnetic drain plug to attract nasty bits of free-floating metals out of the oil.

A Hawk motor at this level of tune needs attention paid to the cooling system. The Duhawki sports not only an F3 radiator, but a lower chin radiator from a VF 700. A couple gauges keep tabs on coolant
temp. One monitors the temp as the coolant enters the heads (lines are split to reverse flow through the rear cylinder) the other before it enter the radiators. The Africa Twin oil cooler mounted under the subframe helps dissipate heat too.

All this power is put to the ground through an HRC close ratio gear box and a Barnett Kevlar clutch smooshed with some friggin' heavy duty springs that require a Popeye forearm to pull the lever. The constant loss motor calls for a Briggs and Stratten powered go-cart wheel to be pushed against the rear wheel to get things going. The motor blips almost like a motocrosser. A big fast v-twin motocrosser. The HRC blackbox that would normally let the motor spin to $10,200 \mathrm{rpm}$ is cut at $9,300 \mathrm{rpm}$ by an after market limiter in the interest of engine longevity. A 4ah battery has only the tach and CDI box to power - the fuel pump was replaced by a Mikuni vacuum fuel pump - allowing the bike to go through two 20 minute practice sessions and two sprint races before requiring a re-charge.

How does it work? As a survivor of Phil's wake I might say it works very, very well. Usually by the end of the race he's back in his pit with his feet up before I've chuffed past the finish line. As a testament to how well he can toss the bike around, he usually leaves the track with more chrome than
a '57 Cadillac. Despite the work put into the Duhawki, Phil might consider selling it. If you can find $\$ 6000$ or so spare Washington's in the pockets of your winter coats, you can have the proven results of Phil's work in your pit. Or you can spend three times as much and build your own Duhawki...

Phil said I could ride it. Someday. He said that I'm not allowed to "whack open" the throttle. I'll take his advice, I suspect that after a season on a stock motored Hawk, I'd be in for a very rude awakening. Actually it might be a pre-cursor to next season. He's building the motor for the Hawkworks endurance bike next season you see. But for now I can look forward to some day very gently twisting the throttle on one well-dressed Hawk. If you want to buy the Duhawki before I get my filthy hands on it you had better give him a quick call in Fort Worth at (817) 430-3994. I'm going to go get sized up for a pair of Versace Depends.
 THANDER

Daytona Bike Week, 1997. Arriving in sunny DeLand, Florida was an affront to my Ohio-winter senses, but I quickly acclimated myself to the perfect conditions by slathering on 4 bottles of suntan lotion and downing a Coke. Why we assume ourselves to be superior to migrating birds on the evolutionary ladder is beyond me, because in reality anyone who stays north for the winter (myself included) is assuredly dumber than a rock.

Suiting up for the practice session the day before the first AHRMA National Battle of the Twins race was not a calm and tranquil scene. My gut was churning not knowing how the bike would perform, as I had never been on the bike before, unless riding it 2 blocks down the street counts.

Oh, the bike - it's a 1989 Hawk with all the standard tricks. 63 hp out of the stock-pistoned 647 engine puts it in the middle of the "mild to wild" Hawk performance range. It started life as a bone-stock streetbike and metamorphosed into a little RVF-style racer. It's light, lithe, and zippy - exactly what I aimed for, thanks in part to all the great information available on the Hawk List (www.hawkgt.com). After a year of competing in AHRMA's BOTT Formula One class on an uncompetitive 851 Ducati, I hoped that the Hawk would be competitive enough to carry me to victory. Is it? Read on.
AHRMA is well-known for it's vintage racing, but some people don't realize that they offer forms of "Alternative Modern" racing as well. Modern Singles, Twins, and Triples are all welcome in AHRMA events - GSX-R 600's need not apply. AHRMA is a great refuge for people who like to ride something "different" at the national level. The races are well-run, well-attended, and offer folks a chance to see exotic machinery that make sweet noise like no 4 -cylinder could ever hope to. When is the last time you saw two Brittens at a track? At Mid-Ohio you could have. The Hawk is legal in 4 different classes. BOTT Formula 3, Formula 2, Formula 1, and Sound of Thunder. If you have a 647 Hawk, you can ride it in F3 and bump up to F2. If you have a 700 , you can ride in F2 and bump to F1. Sound of Thunder is a class in which anything with 1,2 , or 3 cylinders and 2 wheels, goes. (No Desmo 4 valve bikes, though, sorry Mat

Mladin) F3 is the class I ride in. Overhead cam bikes are limited to 650 cc , pushrod bikes to 850 cc . There are a lot of Hawks, EX 500's, and GS 500's in the class, plus a sprinkling of Moto-Guzzis and the occasional Ducati/Cagiva or BMW. Last year's F3 champion, Wil Harding, rides a new 1100 Guzzi Sport chassis with an 850 engine. All in all F3 is a great class for Hawks, especially if you have one making decent horsepower. One of the reasons I left my Hawk "mild" is that I don't have any "throwaway" races this year. AHRMA has 19 individual races this season, they score the top $75 \%$, or 14 rounds. 14 is all I can manage to attend, so I must finish every one! The Prairie Chicken has proven to be an able competitor this season, and very reliable. After scoring 2nd at Deland, 8th at Daytona, (Need... more... HORSEPOWER!) 2nd and 1st at Road America, two 2nds at Grattan, and two wins at Mid-Ohio, I'm locked in the middle of a three-way battle for first place. Mr. Harding leads the series by virtue of attending 4 more races than I have, and Hawkster Sean McNew sits in 3rd place. Any one of us three can win the title, it will all come down to the final race of the series at Roebling Road in November.

Next year the AMA is following AHRMA's footsteps and offering a "Pro Thunder" class. 900cc Triples, 850cc liquid-cooled Twins, 1100 cc air-cooled Twins, 1250cc pushrod Twins, and unlimited Singles are legal for the class, with the exception of twin-cylinder, watercooled, desmodromic engines. Nix the 748 's. I'm not sure how competitive a Hawk will be in this class. Bikes like Pete Johnson's Moto Guzzi 1200, NWS-framed Rotax singles, 105 hp Ducati 944 SS's, or built T595 Triumphs may be hard to beat. Plus there will be "Bostrom types" out there on Buells. My own idea of the ultimate Pro Thunder bike is a 984 two-valve Duck engine in a 916 chassis. (anyone have a spare $\$ 25,000$ ?) It will take a 700 cc Hawk putting out 80 hp plus, in my opinion, to have a chance of winning, even then it will need a hell of a rider... and forget it at Road America or Brainerd. It is a chance to ride with "the big boys," however, and I'm planning on at least racing at Mid-Ohio, which is more of a rider's track. I know of a few other Hawksters contemplating racing in the Pro Thunder class, so stay tuned.

Hawk For Sale: '89 Red, showroom condition. 13K, Supertrapp \& stock can, Two Corbin \& stock seats, MEZ $1 / 2$ rubber, Dynojet, TBR re-valved fork w/ uninstalled Race Tech Emulators, and Progressive fork springs, chrome headlight shell, quick mounts for soft bags, shop and parts manual, spare cables, in perfect mechanical and cosmetic condition. $\$ 3200.00$ Call Chuck Rulon in Media, PA Fri-Sun 610-566-4912, Mon-Thur 410-586-8427 (eves) and 301-342-0272 (days). Jim Davis is selling lightweight racing subframes made of 6061 T-6 aluminum, $5 / 8^{\prime \prime} 0.155$ wall aluminum, made to fit the standard Airtech RC-31 solo seat, with a tab on each side for the side mounts (you drill or mount it at your discretion), plus a tab for a muffler hanger on the right side. The Tank mount point is a piece of aluminum plate, not drilled, you can drill the hole where you need it, and put a bolt through from either side, as you see fit. The price is $\$ 150$ each, plus shipping. Price subject to go up after the first batch. Contact Jim at: jdavis@dlcc.com or call at 415-8939359 on the West Coast.

Tim Klifman is looking for a Hawk frame and swingarm for a project bike he has in mind. If you have such items laying about in your attic, please get in touch with him at (517) 463-8232. Sort of makes you think of the possibilities, dunnit? CR 500 motor? XR 600? Hmmm, how about a nice BB 500 motor?

Mark Green is selling some items off. Hawk seat $\$ 20.00$, Stock exhaust muffler, $\$ 10.00$, rear plate holder thingie $\$ 10.00$, stock bars $\$ 10.00$. He's looking for a set of gauges and a Supertrapp or Spec II exhaust. If your able to help fill or empty his garage, call him at (619) 679-1691.
'90 Hawk for sale. Red. All stock, except racetech emulators, braided steel, MEZ $1 / 2$ tires. Plus lots of optional touring goodies. 18,500 miles. $\$ 3,500$. Hawk engine. Less than 5,000 miles. $\$ 500$.
Also: ' 88 VTR 250 Interceptor for sale. New tires and battery. Makes a great first bike or first racer. $\$ 2,000$. Contact George Batcabe in the Reno area at 702-747-6199.

## BY JAMES MONTEBELLO GARB VOOODOO PART TWO

So, you've twiddled around with rejetting the stock carbs, maybe you've added an aftermarket exhaust, and yet you crave MORE. What's next? The cheapest place to get more power (and, alas, more noise) is to lose the stock airbox. The Hawk's airbox is incredibly restrictive. This is quite unlike a number of other "modern" bikes, which have airboxes that are carefully designed to provide a tuned-length effect, boosting midrange power without significantly hurting top-end.

A series of dyno runs shows that removing the airbox adds power everywhere above 4500 rpm (and loses nothing below it). At peak, the gain is as much as 5 hp (about $10 \%$ ). The engineers simply lost the battle with the stylists in having that dinky peanut tank, which not only holds far less fuel than many of us would like, but restricts the space the airbox must fit into as well. A bonus side effect of replacing the airbox with individual filters from K\&N or UNI (the choice is up to you, but there are tuners that insist that K\&Ns filter better), will also make it much easier to remove/replace the tank and carburetor assembly when servicing fuel system..

The next rung up the ladder is smoothing intake flow. Sharp edges and sudden turns cause turbulence, hindering airflow and cutting power as airflow demand rises. Removing these impediments adds a few percentage points to the flow numbers, further boosting top-end power. Tuners have differing theories on how much turbulence is a good thing - we're not going to start that insane debate here. When you remove the airbox, you'll see a large, flat lip with a sharp edge at the carb mouths. You can either modify this lip with a pair of velocity stacks, or you can machine the lip away entirely.

Velocity stacks are tapered pipes with a rolled lip, usually made of plastic or aluminum, that are meant to provide the smooth transition into the carbs that produces lower turbulence flow. In an ideal case, the length of the stack is tuned just like the length of an exhaust header, to provide wave effects that can greatly enhance power and drivability. However, for the typical rev range a Hawk sees, the tuned length is
roughly 1.5 to 2 feet, so stacks somewhat shorter than ideal have to be used. A typical motorcycle stack is only a few inches long. Another approach is to "bellmouth" the carb itself, machining the area from just upstream of the slide to the mouth of the carb to a smooth taper with no sharp edges.

The ultimate top-end power tweak (short of fuel injection) is a pair of slide-throttle carbs. From the last installment, you'll remember these carbs are different than the stock constant-velocity (CV) carbs in that the slide itself is the throttle (as opposed to the butterfly valve in a CV carb), so when it's fully open, there's nothing hindering air flow. Slide-throttle carbs are finicky, and generally only suited to the most committed power-junkie, or the racer. Their throttle response is abrupt, which can be good or bad, depending on taste. These types of carbs add a distinctive rattle to the intake noise as the slides bounce in their guides to the pulse of the intake. Tres' chic.

By far the most commonly fitted set of slide-throttle carbs on Hawks are 39 mm Keihin FCRs. These are available from several suppliers, including Carburetor Parts Warehouse, and Sudco distributor, Burns Racing Machine. Patrick Burns, of the latter shop, has a detailed Web page on tuning these carbs at [http://www.lifenet.com/brm/brm.htm](http://www.lifenet.com/brm/brm.htm). BRM sells a 39 mm FCR \#016-686 for the Hawk that includes a manifold adapter and velocity stack - list price $\$ 380$ each, you'll need two. You'll need a \#012-271 Hawk throttle kit that includes the throttle assembly and cables, list price $\$ 143$. If you order everything through BRM, price is 5799 including shipping anywhere in the continental US. Burns Racing Machine is located 235 Wheeler Road, Marstons Mills, MA 02648 - but Patrick said the shop will move soon. Phone (508) 420-3600 to get more details.

Tuning slide throttle carbs is similar to tuning CV carbs. However, because the airflow velocity is not constant, as it is with CV carbs, the effects of that change in velocity on jetting must be taken into consideration.

The fuel flow increases with the square of the flow velocity (double the flow velocity, and you get four times the fuel flow), so as the velocity goes up, the mixture richens. To solve this, slide-throttle carbs have replaceable air jets (sometimes called air bleeds). The air jets operate similarly to fuel jets, except that the effect of size is the opposite - a bigger jet means a leaner mixture. The FCR's have an air jet for both the slow (or pilot) circuits and the main circuit.

When tuning the air jets, it helps to visualize the airflow velocity. Say you have two tubes, one larger in diameter than the other, but both the same length. You want to cram a set volume of air (say, one liter) through both tubes in a set amount of time (say, one second). If you do this, the air must travel faster through the smaller tube, since the internal volume of the tube itself is smaller. So, if you are pulling, say - 7000 rpm as you approach a kink, shut off, then roll the throttle back on, the airflow velocity will rise when you shut off, since the "tube" the airflow goes through becomes much smaller, but the revs are still high. When you roll the throttle back on, the velocity will fall, since the "tube" is larger again.

Select the closest fuel jets, then start fooling with the air jets. The fuel jets are the gross adjustment, and the air jets are the fine adjustment (much like the slow fuel jet and the slow mixture screw on a CV carb, only the slow air jet is even finer than the slow fuel screw). If going up or down one full fuel jet feels like "too much", then select one and adjust the air jets instead. When ordering FCR from any supplier, tell them the state of tune of your Hawk. They should be able to deliver the carbs with a useable combination of jets already installed. You will have to fiddle with them to get thing just right though. Replacement of the throttle and cable assembly is usually required as well.

What's the next step? Well, you could try fuel injection, but that would mean another article. And a lot more money.

# Inㄷ:0X 

## Hi Robert:

In Japan, it is cold in winter more or less. The degree depends on the prefecture. In Okayama city, we can ride bikes even in winter but it is not good feeling for me. To maintain good condition of bike, I manage to move my bike every day. Weather in Okayama city is good for riders, because there are very few rainy days (owing to several rivers, we are not suffered from lack of water). Sky in Okayama city is beautiful, too. I am afraid that air pollution destroys the ozone hole and we can enjoy such a clear blue sky, because I get sunburnt easier than eleven years ago when I became to ride a motorcycle, HONDA BIALS 50, in Okayama city. Now I need outer wears in summer not only for safety but also for defending skin. I forget how beautiful the sky was eleven years ago and I feel the changes only by skin.

I was surprised to know that there are so many home pages about HAWK GT. I bet that we can obtain more and better information of HAWK GT in America and Europe than in Japan. Since I became to ride BROS, I read motorcycle magazines carefully to find some items of BROS. I had no serious dissatisfaction in BROS except the uncomfortability of passenger seat (I have ordered Corbin Gunfighter \& Lady saddle) but I want to do something to my bike. As wrote to you, I could not find any issues of BROS in recent magazines. Japanese
bikers (or publishers) seem to forget BROS. On the other hand, there are many HAWK GT enthusiasms in foreign countries! I had strange feeling. It looks like that some actors or actresses who are not popular in their own countries become popular in foreign countries.

As like in America, in Japan, there is a motorcycle race for twin engine, BOTT. Modified BROS gets good records in that race with Ducati and BMW. Another chance to see the name of BROS is in gymkhana game. BROS has big power and short wheel base and many riders use BROS in this game.

I mainly use motorcycles in touring. I have no chance to entry to the motorcycle race but have an interest in modification of bike. If I will modify my BROS, I'd like to keep the stock style because the design of BROS is perfect. On the other hand, for touring use, the form of NTV in Europe is better than that of stock BROS. So I apply the combination of Klauser touring bag and Corbin Gunfighter \& Lady saddle to my BROS. I will send the photograph of my BROS about two month later.

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OK OK, So in my brilliant editorialness I forgot to add Doug Napier's phone \# for those lower chain sliders. Call Doug in Arizona at 602-831-7780 (not too late please) Email him at barf@syspac.com or better yet send $\$ 15.00$ to: Doug Napier 1062 W. Mendoza Mesa, AZ 85210. These things work, they were tested by a friend with a street/race Hawk. The sliders make a bit of noise 'till the chain cuts grooves into the plastic, and the rollers come in contact with the slider. Then the wear virtually stops - a killer street set-up for a Hawk with a 900 RR or high ride height shock.

Hawksters desiring to add conspicuity with a running light function to their rear turn signals need order only a pair of 3 -wire, double filament socket/wires from their friendly Honda dealer. The part number is 33405 -MN8 671 for one side and 33455-MN8-671 for the opposite. The only difference is the color and (slight) length of the wires, one being for the left and one for the right sides. This is a slip-in/bolt on conversion, with the exception of splicing the two running light connectors into the free plug available in the stock wiring harness. You'll figure it out. Price? $\$ 6.77$ each from Plaze Honda for Hawkworks subscribers (1-800-4-U-CYCLES). (Submitted by Pete Tamblyn)

Perpetual AHRMA podium poser JD Hord suggests a possible carb problem that many may over look: While digging in the bowels of my carburetors the other day, I discovered that the float valves have little plastic screen-type fuel filters on them. Diehard Hawksters may already know this, but I proved that at least one dumbass didn't. Anyway, mine had bits of flotsam and jetsam stuck in them, proving that one should use a fuel filter if they are smart. I don't. And in the interest of improving fuel flow to the float bowls, I pitched my little newly discovered mini-filters. That way a piece of crap from

my supposedly clean race fuel can stick open a float valve, causing it to overflow all over my back tire, inducing a rather wild and flappin' high side eventually bursting into flames in front of thousands of adoring fans. Some of you experiencing mysterious fuel problems on your Hawks may want to check these filters. It has been 8 years or so since they've been cleaned now ain't it?

Here's a perfect place for some carb diaphragm advice from Hawkmeister Jim Davis: "The carbs WILL have to come off - sometime. I recommend leaving the lower rubber boots attached to the heads, not the carbs, and the upper ones to the airbox attached to the airbox, not the carbs. When you're putting the needles into the slides, and trying to get the diaphragms back in, it can be frustrating. There is a trick to it, I'll try to outline the method. This will be more clear after you've got the carb apart, (Then you're committed aren't you? -ed.) and can see the parts I'm referring to. When you are reassembling the carbs, the diaphragm will appear to be too small to fit in the o-ring groove between the carb body and the vacuum chamber cap. The way to get it to fit without pinching a hole in the rubber diaphragm is to stick something like the handle of a screw driver $1 / 2$ way through the mouth of the carb to hold the slide from closing, insert the slide down it's cylinder with the needle sliding into the needle jet (this is why the handle of the screwdriver can't go more than $1 / 2$ way), put the slide spring in (you NEED to include the spring, they won't close if you leave it out.....), and invert the diaphragm so that it's like an open umbrella rather than a golf tee. The diaphragm will stretch so that it will fit right into the 0 ring groove, and the screwdriver handle keeps the slide from dropping down so far as to pop the diaphragm out of it's groove. Put the screws into the carbs to hold the chamber cap on, and go to the next carb. Re-installing the carbs on the heads calls for some silicone spray, and a slight twisting motion. Easy-peasy."

And if you want confirmation of torque values, a clue to where that extra bolt came from, or how many parts they can pack into a bike, Hawk service manuals are available through Plaza Cycles ( 18004 U Cycle) for $\$ 27.99$. WAY cheaper than one hours labor $I$ assure you.

If getting just one black and white newsletter isn't enough for you, let me introduce you to Sport-Twin News. Editor John Sweeney is one of the many West Coast racers who mercilessly flog EX 500's around the track - pestering all of us Hawksters to no end. John's lil' 'zine doesn't suffer tunnel vision like Hawkworks - He includes stuff on Hawks, Ducks, TL's, Super Hawks and anything else that has two pistons and two wheels. If you wish to sample Sport-Twin News before you part with your duckets, you can check out the cyber version at: <www.sport-twin.com>. In exchange for a $\$ 30.00$ check sent to Sport-Twin News 224 Ashbury St, San Francisco, CA 94117-2025 you can get Sport-Twin News delivered to your humble abode - along with a nifty $T$-shirt to prove to all bikers that you are cool. But please stretch that Hawkworks shirt over your washboard abs when you're chillin' at your local biker hangout. What can I say HAWKWORKS RULES! (commence egg throwing now.)

Want more pics from Mid-Ohio? Selden Deemer hovered over a hot scanner for hours and posted them to: http://www.library.emory.edu/SSD/photo_gallery.html

STOLEN race-prepped 88 Hawk GT (grey): total loss ignition, F2 front end (black wheel) with Ferodo oversize rotors, custom rear subframe, handbuilt exhaust w/ Hindle can, Fox shock, polished frame. Stolen in Maryland (suburban Washington, D.C.) on July 31st Contact Alan at 301-933-6203 with info.

STOLEN race-prepped ${ }^{8} 8$ Hawk GT (grey): F2 front end (salmon-colored wheel) with Ferodo oversize rotors, black VFR 750 rear wheel, Fox shock -stock subframe, bodywork. Stolen in Maryland (suburban Washington, D.C.) on July 31st. Contact Thane at 301-460-8605 with info.


Laurie Rockwell of Halifax, Nova Scotia submitted the back cover shot for this issue. She writes "The bike is mainly stock with the addition of a Rifle fairing, Corbin Gunfighter and Lady seat, braided steel brake lines and Progressive fork springs. Combined with Dunlop K591 tires the little bike is a great handler and a fairly good long weekend tourer." She reports that despite the six month riding season, she still manages 7000 km a year, and wants to add the Ventura luggage system reviewed in the last issue.

HAWKWORKS PERKS - Just by subscribing to our humble newsletter, you are entitled to a couple nifty discounts. You can get a $5 \%$ discount off of a carbon fiber front fender/chain guard combo from LightSpeed Motorcycle Componants if you order both items at the same time. Contact Paul Romain at LightSpeed 13219 Peach Hill Rd. Moorpark, CA 93021. Of course the big cost plus 20\% discount at Plaza Cycles is still in effect. A quick, easy and free call to 1800 4UCYCLE will get you access to the killer discount by telling the parts person you are a Hawkworks subscriber. (Your name will be matched to a subscribers list.) This IS a big discount, just give it a try. Rich Bebenroth at Plaza, in Brooklyn NY, is a former Hawk racer, and current Hawk modifier/thrasher. This man knows his way around our little GT, and has been stockpiling Hawk parts to keep up with the demand. If there are other companies that you readers know would benefit from giving a discount to Hawkworks subscribers, let us know here at home base. As a group, we are pretty powerful, and Hawk dollars spend pretty quick as we all know. We are cranking out another run of $t$-shirts too. $\$ 15$ will cover your bod in either a $L$ or XL black or white $100 \%$ cotton T. A Shimmin designed logo and single sided swinger graphic graces the front. You too can be super kewl at the local biker pool.


