





NUTS & BOLTS

- 28 HOW IT WORKS: CLUTCHES How they do what they do
- 36 TECHLINE: EVO ENGINE UPGRADES Lifters, pistons, flywbeels, cylinders 3 oil filtration
- 74 2012 DAYTONA GIVEAWAY BIKE Springers Custom Cycles builds us a rolling chassis
- 82 FORK UPGRADE

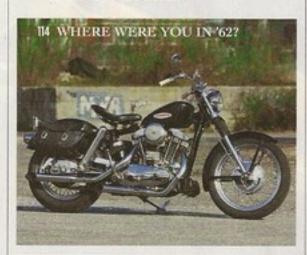
 Assembling a set using Mid-USA legs, CCE tubes, and Progressive Suspension springs
- 89 HOG HELPLINE: GOING METRIC & INCREASING AMPERAGE

CLASSIC AMERICAN IRON

- 92 VINTAGE TECH: EARLY VALVE SYSTEMS
- 114 WHERE WERE YOU IN '62? 1962 Harley-Davidson Sportster

HANDBOOK

- 60 MOUNTAINFEST A real biker party, West Virginia style
- 90 FIT TO RIDE: CALF STRETCHES



SUBSCRIBE TODAY & SAVE! Give A Gift, Get A Gift see page 101

\$24.95 A Year For 12 Issues (Half Price)

CANADA \$39.95 PER YEAR

CUSTSVC_ameriron@fulcoinc.com

www.Almag.com

Or Call 877/693-3572



8 DEEP BREATHER



№ 2012 DAYTONA GIVEAWAY BIKE



82 FORK UPGRADE

2012 DAYTONA GIVEAWAY BIKE

Springers Custom Cycles builds us a rolling chassis



Here's Scott with his proprietary Springers Custom Cycles softail-style frame, the foundation of our 2012 Daytona Bike build.

S I TOLD YOU LAST MONTH, SPRINGERS CUSTOM Cycles (SCC) is building this year's Official Motorcycle of Daytona Bike Week. This motorcycle is the most publicized raffle bike in the world. And since it's a raffle bike, all it takes to own it is 50 bucks and a little luck! With only 4,500 tickets being sold, the odds are definitely in your favor. However, that's only if you buy a ticket! The accompanying sidebar tells you how to get one from the Daytona Beach Community Foundation. I test rode a sweet little SCC rigid bobber called the Apollo during the last Daytona Bike Week and felt SCC was the perfect company to build the 2012 Daytona Bike. I'll tell you about my test bike in another issue. Right now, let's look at what components make up the rolling SCC Zeus chassis that's assembled in the accompanying photos and captions.



HOW TO ENTER

SO HOW DO YOU GET A TICKET to win this year's Springers Custom Cycles' bobber? Just mail your name, address, telephone number, the number of tickets you want, and a check for the correct amount (\$50 per ticket) to the Daytona Beach Community Foundation, PO Box 2676, Dept. AIM, Daytona Beach, FL 32115-2676, Or you can fax the foundation at 386/258-5104 with all of the above information plus your Visa, MasterCard, or American Express number, expiration date, and signature. (If you have any questions, you can call the foundation at 386/255-0981.) You can also get more info or enter online at www.OfficialBikeWeek.com.

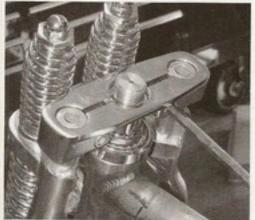
The drawing will be held at approximately 3 pm on Saturday, March 17, 2012, in Riverfront Park in downtown Daytona Beach (across from Daytona Harley-Davidson). Only 4,500 tickets will be printed, so don't delay. As always, you don't have to be present to win, only your entry does. Good luck!



The first parts on are a set of Biker's Choice (BC) chrome fork cups. Scott installs them using a set of pucks and a threaded rod.



After slipping a BC neck bearing onto its lower tree, our Paughco springer front end is installed. Another Biker's Choice neck bearing goes into the top cup, followed by a BC dust shield.



The Paughco chrome springer top tree gets installed next, followed by the chrome Paughco top nut.



After the Metzeler front ME 880 90/90-21" tire is mounted onto the Ride Wright front wheel, it gets topped off with 40 psi of air.



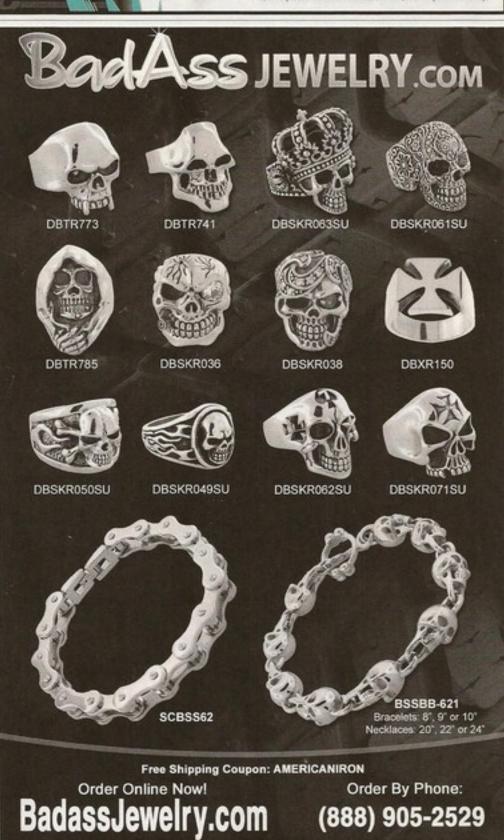


Trike Conversion Kits For Harley-Davidson Motorcycles - 913-352-6788

www.frankensteintrikes.com

Proudly made in Pleasanton, KS. USA



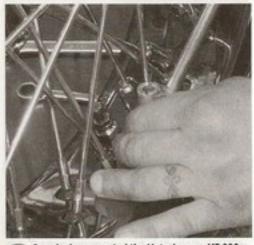




The Ride Wright (RW) matching chrome brake rotor goes on next. By the way, that wheel has a translucent red rim and hub with chrome spokes, and it looks great!



The Ride Wright wheel can now go into the Paughco springer using a Paughco chrome axle and nut kit. That's a chrome Performance Machine (PM) front brake caliper bracket in Scott's hand.



Once he has mounted the Metzeler rear ME 880 200/50-18" tire onto the Ride Wright wheel, Scott pumps in 40 psi of air.



Yup, this wheel also gets a matching chrome Ride Wright brake rotor.

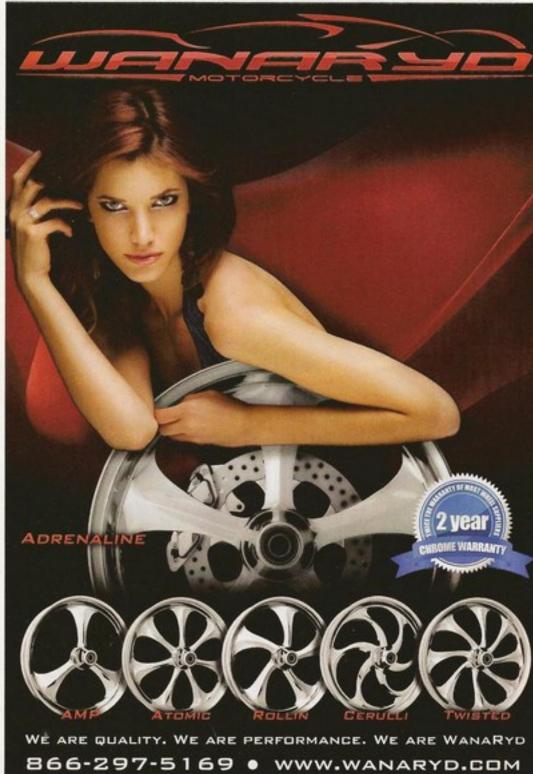


Of course, the other side of the wheel gets a chrome matching Ride Wright pulley.



Now that the wheels are prepped, Scott does the same for the frame with a set of chrome Progressive Suspension 442 Softail rear shocks and Biker's Choice shock bolts.





MENTION CODE "AMERICANIRON" FOR A SPECIAL DEAL!

NEVER run out of gas again!



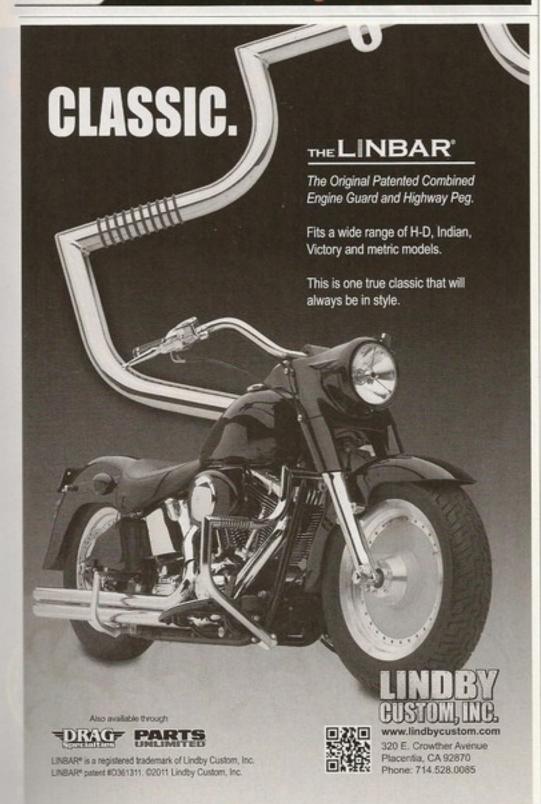
- Custom made to "FIT PERFECTLY" in the back "hard to reach" corner of HD bags
- Spout stores inside of gas can
- VAPOR PROOF, SPILL PROOF, ONE GALLON

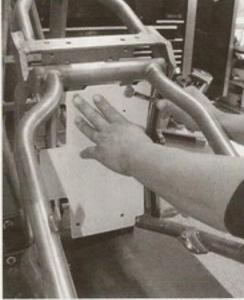


REDA Gas Can

CALL TO ORDER 708-364-7643

www.redagascan.com





A Paughco splash shield also gets bolted into place to prep the frame for the rear wheel



The RW wheel is then installed into the rear swingarm of the SCC frame. The Performance Machine chrome rear four-piston caliper and mounting bracket assembly also goes on at this time.



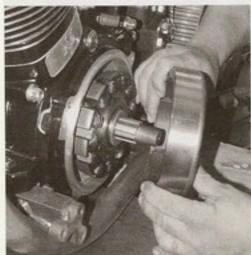
Since he's bolted on the PM rear brake, Scott installs the Performance Machine chrome front four-piston caliper next.



Time for the powertrain to be installed, starting with the Crazy Horse 100" V-Plus motor. It fit right in — with no modifications — as usual!



Next in is our Rivera Primo six-speed Power-Drive transmission. A Rivera Primo tranny pulley will send the power to the rear wheel.



Our Biker's Choice charging system, which consists of a rotor and stator, goes on next. A Biker's Choice regulator follows.

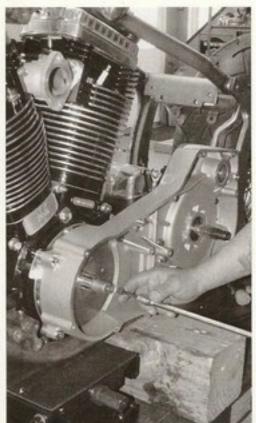


TWO Major American Motorcycle Parts Distributors told me I couldn't make any DOLLARS selling only American Made Products, so I'll make Cents and help put Americans back to work!!









Joining the Crazy Horse engine and Rivera Primo tranny is a bulletproof Delkron inner primary cover.



After the Rivera Primo 2" primary belt drive front pulley and clutch shell are placed in the belt, they are slipped onto their respective shafts. Scott secures them with the supplied hardware.

continued on page 110





Complete the leather look of your Road King, Deluxe or Heritage and keep your legs warm & dry with matching leather lowers. Locking glove boxes- adjustable venting- detachable without tools-also available paintable. \$339 and up.



Find items from magazines to motorcycling collectables in one virtual garage.

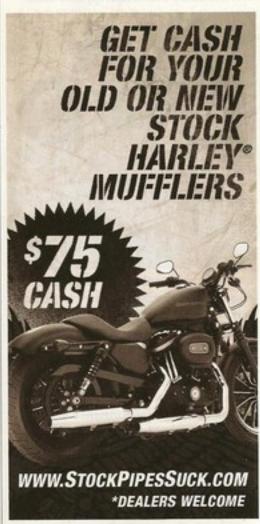


BIKE PROJECT

continued from page 80

Last month, you watched as Anthony at Crazy Horse Motorcycles built our motor, a V-Plus 100"! Since it has the same mounting points as all Evo-powered H-Ds, Crazy Horse's V-Plus will fit most standard Big Twin frames. These are all brand-new (not reworked Gilroy) motors built with quality internal components and correctly machined castings. The V-Plus gets its 100" displacement via a 3-5/8" bore and 4-1/4" stroke. Compression is set at 9.5:1 using Keith Black hypereutectic pistons.

That engine will sit in a proprietary SCC softail-style frame. Also resting in that frame will be a Rivera Primo PowerDrive six-speed overdrive (0.860:1), left-side-drive tranny. This transmission features close-ratio, forged gears that have also been back-cut for solid engagement when shifting. This transmission is built for high-performance applications, yet operates smoothly and quietly. All PowerDrive transmissions are tested



D&D FatCat exhaust systems!

SOURCES

ADVANCED SLEEVE/DELKRON

8090 Auburn Rd., Dept. AIM Concord, OH 44077 866/335-5766 www.Delkron-Mfg.com

BIKER'S CHOICE

Your local Biker's Choice dealer www.BikersChoice.com

CRAZY HORSE MOTORCYCLES

19403 72nd Ave. South, Dept. AIM Kent, WA 98032 253/872-3602 www.CrazyHorseMotorcycles.com

DAYTONA BEACH COMMUNITY FOUNDATION

PO Box 2475, Dept. AIM Daytona Beach, FL 32115-2475 386/258-5104, fax www.OfficialBikeWeek.com

METZELER MOTORCYCLE TYRE, NA

See your local Metzeler dealer www.Metzeler.com

PAUGHCO

PO Box 21390, Dept. AIM Carson City, NV 89721 800/423-2621 www.Paughco.com

PERFORMANCE MACHINE

6892 Marlin Circle, Dept. AIM La Palma, CA 90623 800/479-4037 www.PerformanceMachine.com

PROGRESSIVE SUSPENSION

5572 Fresca Dr., Dept. AIM La Palma, CA 90623 714/523-8700 www.ProgressiveSuspension.com

RIDE WRIGHT WHEELS

3080 East La Jolls St., Dept. AIM Anaheim, CA 92806 714/632-8297 www.RideWrightWheels.com

RIVERA PRIMO INC.

12450 Whittier Blvd., Dept. AIM Whittier, CA 90602 562/907-2600 www.RiveraPrimoInc.com

SPRINGERS CUSTOM CYCLES

1432 Route 179, Dept. AIM Lambertville, NJ 08530 908/397-4090 www.SpringersCustomCycles.com



enabling Genuine Harley Davidson® Electronic

Cruise Control
(separate purchase)
set coast resume accelerate
maintain constant speed uphill & downhill
1996- present Softails
1996 - 2001 Road Kings
1998 - 2001 Electra Glides
1996 - present Police Electra Glides
No More Throttle Locks! Please!

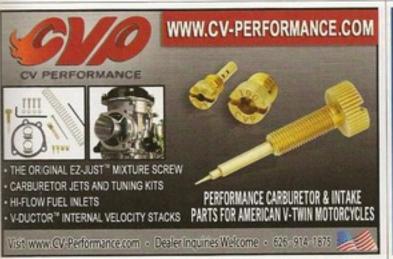
Since 2002

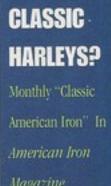
WWW.cruisemount.com

Patents pending

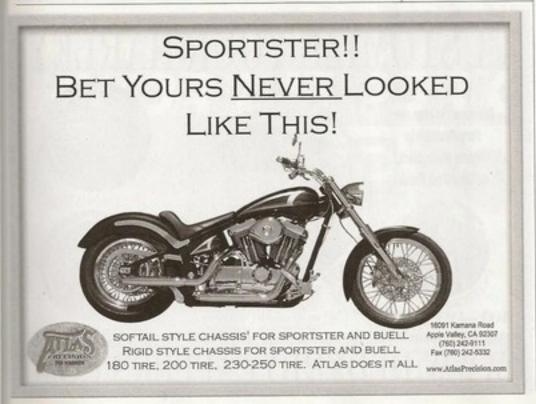








LOVE



BIKE PROJECT

prior to shipping and Rivera/Primo backs every tranny with a two-year, unlimited-mileage, limited-replacement warranty.

Connecting the motor to the tranny is a Delkron bulletproof inner primary that's cast from A356-T6 high-grade aluminum for superior strength and then CNC-machined for a perfect fit. I've used a lot of Delkron covers over the years, and I've never had one that didn't fit correctly. All Delkron inner primaries are shipped with an upgraded main double row sealed bearing, main seal, starter shaft oil seal, starter shaft bushing, and chain adjuster installed.

Filling that cover is another quality Rivera Primo product: a Brute III Extreme closed primary belt drive system. The Brute III Extreme is electric-start capable and can handle over 150 hp. It features forged-aluminum pulleys and a 1-3/4", 11mm Super Belt.

As for the chassis, holding up the front of the bike is a quality Paughco springer front end. I've got a Paughco springer on two of my bikes, and I love 'em! Paughco has been making springers for decades, and nobody makes them better. That front end rolls on a Ride Wright 60-spoke steel wheel that's got its rim and hub powdercoated translucent red, and its spokes are chromed. Scott at SCC is so impressed with these wheels that he's going to use them on his production bikes from now on. Naturally, we also got a matching chrome brake disc from Ride Wright. That 21" wheel is wrapped with a quality Metzeler MF880 90/90-H21" front tire. Out back, suspension duties are taken care of by a set of Progressive Suspension 442 rear shocks, so no worries there! Of course, a matching Ride Wright 60-spoke steel 18" wheel, complete with chrome brake disc and pulley, and a Metzeler ME880 200/50-VR18" tire is holding up the tail. Stopping power is supplied via a set of excellent Performance Machine chrome four-piston calipers front and rear. All PM calipers are 100-percent CNC-machined from solid aluminum bar and are designed to use both DOT 4 or 5 brake fluid. (Just don't mix them!) And making it all come together are a number of parts from Biker's Choice. AIM