

On the Air

Newsletter of the Arkansas Corvair Club ■ CORSA Chapter 722

March 2010

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Build Your Own Drier to Remove Moisture from Compressed Air

by Elvis King

“For my powder coating jobs to succeed, I needed a device to remove the moisture from the compressed humid Arkansas air.”

When I started my first efforts at doing powder coating at home, I had to rely on a moisture separator bulb at the compressor and a little desiccant cartridge at the powder gun to condition the air that delivered the powder to its target. While the bulb would remove some moisture, after a short time, the cartridge at the gun would become ineffective and spots would start showing up on the finished powder coated surface.

For my powder coating jobs to succeed, I needed a device to remove the moisture from the compressed humid Arkansas air. Commercial driers use refrigeration to condense and thus remove this unwanted wetness. Home shop units can be had for \$350 to \$450. Rather than spend the money for a commercial air drier, I decided to build my own device to perform this function

Using existing materials that I found in my shop, I cobbled together the device that you see in the photos on page 2. Although, to complete the project, I

did have to purchase one new half-inch copper T-fitting and five copper end caps.

My home-built drier works using condensation, just as the commercial ones function. Air enters through an ordinary male quick-disconnect soldered to a short piece of half-inch copper tubing. The distant end turns down and exits the bottom of the box, with a drain tee such as used to be found on a car's radiator.

Positioned vertically, off this horizontal copper pipe, are six short lengths of quarter-inch copper tubes, soldered in to another slightly offset horizontal half-inch pipe that is capped on one end and has a T-fitting on the other end. Off from this T comes a vertical pipe that has a quick-disconnect female fitting on top for the dried air to leave and another drain T below.

The entire manifold (tubing) arrangement is set in a waterproof plastic box, made of individual pieces glued together with epoxy. The plastic box is encased in a larger wooden box, with insulation between the plastic and

wooden layers. You can see these details in the photos on page 2. To promote condensation, I fill the small plastic box with cold water when using the air drier.

While I was building the air drier, I was not 100 percent confident that it was going to work at all. Although, I reckoned that the cross-sectional areas of the six quarter-inch pipes should not choke the air flow too much, I knew it would have to be tried in use. After using the device, I have not found any discernable loss of air pressure from routing compressed air through the drier.

During my first uses of the drier, I used ice to chill the water for the condensing action. From later further trials, I have found that cold water from my shop refrigerator meets the needs of any powder coating, blast cabinet, or air tool work that I am doing.

When the compressed air task is finished, it is a real kick to drain a small amount of white foamy water from the T off the lower pipe and to realize that

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"Corvairs bring friends together."

Home-built air drier *continued*

this moisture would have gone into the air tool or the powder finish, were it not for this simple home-built device.

Thus far, I have not found any water to be drained from the T connected to the input pipe. So it appears that the condensation takes place in the six vertical tubes and in the lower horizontal tube.

If you have a serious need for an air drier, probably it is best to buy a commercial unit. If your needs are more like mine--for small jobs in a home shop--I encourage you to have fun and to build your own. ■



Above photo shows side view of the home-built drier (for compressed air) crafted from scrap materials by Elvis King. Note the air connections (inlet and outlet) at the left and top, respectively. Also, note drain tubing beneath. Photo at left shows a top-down view of manifold (copper tubing) inside the cooling box that holds chilled water to promote condensation. This device has yielded good results at low cost for Elvis.



**Welcome new ACC member
Don Ruegsegger**

Arkansas Corvair enthusiasts are delighted to welcome Don Ruegsegger, of Clinton, to chapter 722 of the Corvair Society of America. Retired from work as a Depot Manager for the GSA, Don owned several Corvairs is considering owning another.

Happy Birthday
to our ACC associates
born in April.

Laura Kuizin
April 2

Kermit Parks (71 yrs)
April 9

Cortney Claypool
Mary Beth Claypool
Christel Espejo
Don Ruegsegger
April 12

Jim Latture
April 13

Ernie Gray (79 yrs)
April 22

Larry Drannon
April 26

Pam MacSorley
April 30

Happy Anniversary
to
Larry & Pat Drannon
April 25

The Right Coast Association publishes free online Winter 2010 edition of "Cool Cars & Hot Happenings" magazine

The Right Coast Association (www.rightcoastcars.com) is dedicated to producing and promoting member-centered, family-oriented, safe, enjoyable and affordable automotive events throughout the Right Coast of the United States. You can read their free quality magazine with terrific stories and color photos on the Internet at - <http://viewer.zmags.com/publication/ad668af8#/ad668af8/1>.

ACC Dues Alert

In an effort to keep everyone informed about the status of your ACC membership dues, we publish a membership *Dues Alert* in every issue of *On the Air*.

The *Dues Alert* lists names of members who are past due and those due for the current month.

Dues are **\$20.00** for regular membership and **\$15.00** for associate members. Please mail payments to: **Arkansas Corvair Club, P.O. Box 627, Little Rock, AR 72203.**

Here are the names that are **past due** and due in **March**.

Past Due.....Butch Chapman
Larry Levy
Bill MacSorley
Julie Pearce
Todd Sanders
Melvin Torres

Due Mar.....James Carter
Ernie Gray
Michael Kuizin
David Schneider
Mike Shroyer

Please disregard if you've already paid.
Thanks for your generous support. ■

ACC February Meeting Minutes



JB King

The Arkansas Corvair Club met at Just Like Mom's restaurant, on Kiehl Avenue, in Sherwood, on Tuesday, February 16.

The meeting was called to order, by president Frank Campbell.

The minutes from the January meeting were approved as published in the February newsletter.

Elvis King reported that the club has \$ 1955.42 in our treasury.

Old Business

There was no old business discussed.

New Business

Frank reminded members that nominations for new officers will be taken at the March meeting. The slate of officers will be voted on at the April meeting. Officers will be installed at the April meeting.

Announcements

Club members were reminded that Donna and Jerry Pentzer will host a party for Corvair and Corvette enthusiasts, on Saturday, March 13, at their home in Ozark. Donna and Jerry are members of our Corvair club and of a Corvette club. They have mailed invitations, to all ACC members, requesting RSVP and providing directions for finding their property in Ozark.

Some ACC members, in central Arkansas, plan to meet and travel

together to Ozark.

Show & Tell

As the last order of business, Elvis King showed club members his shop-built compressed air drier. Also, Elvis explained how the device works to remove water from compressed air when working with air tools or when spraying paint with compressed air. See related article on pages 1 and 2 of this newsletter.

There being no further business, the meeting was adjourned.

Respectfully submitted,

JB King



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We are a full-time parts and service shop for your Vair: whether you want to keep it stock or modify it to gain performance, Rafee can do it: complete restoration and full line of rebuilding services, powder-coating and chrome. We stock a large selection of new, used, and some NOS parts. We carry durable gaskets that are custom made for Rafee Corvair. All of our parts are exact reproductions for easy installation. Sick and tired of paying high prices for parts to keep your ride going? Why not give us a try? Here are some examples of our great prices:

60-9 all, engine harness, \$74.25

60-4 engine shroud seal, 4 pieces, heavy duty, \$16.25

60-9 thick cork valve cover gaskets, \$6.50/pair

60-9 oil pan gasket, thick cork or aluminum, \$6.25

TRW forged pistons, \$295

7-mm sparkplug wires, blue / black / red, \$26.55

61-4 chrome gas cap with key, \$17.88

60-9 differential top cover gasket, cork, \$4.25

Universal HP Accel coil, \$28.25

63-9 mirror with Chevy bow-tie, \$27.80

60-9 rod bearings, std or .010, \$54.98

Correct roller rockers for your Vair, \$309

(Prices subject to change)

We carry Soffseal weather strips, KYB, Hastings rings, Taylor wires in various colors, tissue dispensers all years, mirrors all years, Isky cams new and reground, cam gears stock and HP, brake shoes, disc brake kits, correct fan belts, carburetor kits cars and turbo, turn-signal switches, turn signal levers, grommets, oil filters, Viton O-rings, clutch cables all years, and many more. We accept PayPal and all major credit cards. We offer discounts to clubs.

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On the Air

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enjoyment, and preservation of
the Chevrolet Corvair."*

Arkansas Corvair Club Information

Meetings

The Arkansas Corvair Club (ACC) meets on the **3rd Tuesday** of each month at **Just Like Mom's** Home Cooking restaurant, 3140 E. Kiehl Ave., in Sherwood.

March Meeting

The ACC will meet Tuesday, **March 16**, at 7:00 p.m., at Just Like Mom's, on Kiehl Ave., in Sherwood.

Join us at 6:00 p.m. for food and fellowship prior to the meeting. The club offers an array of merchandise for sale—oil filters, gas filters, hats, decals, patches, T-shirts and more.

Officers

President: Frank Campbell, 2503 Creekview Lane, White Hall, AR 71602, 870 247-1794.

Vice-President: Bill Smith, 3034 Donnell Ridge Rd, Apt 328, Conway, AR 72034, 501 499-6676.

Treasurer: Elvis King, 21305 N. Mill Rd., Little Rock, AR 72206, 501 888-1224.

Secretary: JB King, 21305 N. Mill Rd., Little Rock AR, 72206, 501 888-1224.

Elected Board: Allan Embrey, 501 834-5373; Joe Espejo, 501 834-0806; Clyde Jones, 870 429-6789; Aaron Swift, 501 490-2448.

Appointed Board: Pending.

Committee Chairs

Membership: Elvis King

Publicity: Bill Smith

Newsletter Editor: Bill Smith, 3034 Donnell Ridge Rd, Apt 328, Conway, AR 72034, 501 499-6676.

Newsletter Advertising:

Non-members and businesses:
\$150/year full page; \$100-½ page;
\$50-¼ page.

Program & Events: Open

ACC Mission: The mission of the Arkansas Corvair Club (ACC) is to promote the maintenance, enjoyment, and preservation of all types of Corvairs and related vehicles, and to advance and improve driving skills, automobile safety, and the Corvair's image.