

FIVE SIMPLE WAYS TO JUDGE MOTOR CAR VALUE TODAY..



Look for these 5 Vital Features in any Automobile you buy!

The Airflow DeSoto; all models now only \$1015. Airstream De Soto models from \$695. Prices are list at the factory, Detroit.

1. GENUINE HYDRAULIC BRAKES
2. SAFETY-STEEL BODIES
3. PATENTED FLOATING POWER
4. RE-DISTRIBUTION OF WEIGHT
5. AMAZING ECONOMY IN GAS AND OIL

YOU SOMETIMES HEAR a motorist say that it is difficult to judge automobile value these days.

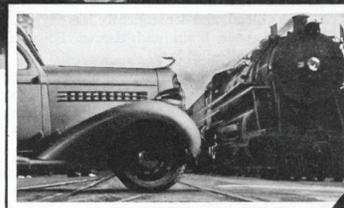
To some extent that is true. Walking around a car on a showroom floor doesn't reveal very much. For nearly all cars are good looking. And nearly all of them "ride" well on a demonstration.

Then what's the answer? After thinking it out, more and more people have come to this conclusion. There are five basic engineering features that are the very foundation of value. Without them

no car today is truly modern. These features are listed above.

Is it a mere coincidence that *all five* of them are found only in Chrysler Motors cars . . . Chrysler, De Soto, Dodge and Plymouth? We do not think so. Isn't it simply proof that the saying, "You get the good things first from Chrysler Motors," is literally true?

You want genuine hydraulic brakes and a safety-steel body to protect you in all emergencies. That's obvious. You



(Left) Hydraulic brakes always bring you to a smooth, swift stop. Always equalized. They save frequent relinings.

want Floating Power engine mountings to end vibration . . . and re-distribution of weight to end all rear-seat "pitching."

And you want the kind of engineering



A SMOOTH back-seat ride . . . plus the protection of a modern safety-steel body.

that can show you the biggest saving on your gasoline and oil bills.

Some cars, today, have one or even two of these features. But only Chrysler Motors cars . . . Chrysler, De Soto, Dodge and Plymouth . . . have *all five*. Just remember that significant fact and you cannot fail to get the finest value.

YOU GET THE GOOD THINGS FIRST FROM

Chrysler MOTORS



OWNERS who keep records say Chrysler Motors cars save most in gas and oil.

CHRYSLER • DE SOTO • DODGE • PLYMOUTH

VOTE for your Officers and Directors! See the Insert!

REGISTER for the 2018 National Meet!

AIRFLOW CLUB WEBSITE

www.airflowclub.com

AIRFLOW CLUB FORUM

autos.groups.yahoo.com/groups/Airflow

DEDICATED TO THE RESTORATION AND PRESERVATION OF CHRYSLER AND DESOTO AIRFLOW MODEL AUTOMOBILES AND DODGE AIRFLOW TRUCKS - THEIR RELATED HISTORY AND LORE.

OFFICIAL PUBLICATION OF THE AIRFLOW CLUB OF AMERICA, A NONPROFIT ORGANIZATION FOUNDED JUNE 1962.

PRESIDENT'S MESSAGE



Greetings, Fellow Airflowers!

Wow, there's a lot going on in the Airflow world today. As I type this message I am anticipating leaving tomorrow for California to participate in the Western Regions annual gathering in San Diego. Hard to believe that in 1987 I had breakfast with Bill and Betty Gordon in Altadena and drove with Bill down to Jack Murphy Stadium for my first participation in this long tradition. I was sporadic in my attendance, but have not missed one in the last 12 years. Unfortunately, the sponsors of the event have decided that this will be the last "Big Three" swap meet, so we'll be regrouping for next year.

This being an even numbered year, we are having an election, as mentioned. A ballot containing information regarding your candidates as well as a place for you to vote and send your information for tabulation is included in this Newsletter. PLEASE VOTE!

I know that our Annual Meet Committee, chaired by David Felderstein, is working hard on the Chico Meet. Registrations are being received by our Treasurer, Dennis Pitchford – please, if you plan to attend, send your registration in as soon as possible! It really helps with the organization of the various events, etc.

Many thanks to John Boyd and John Spinks for a very useful article regarding the replacement of rear axles on Chrysler Airflows. I, like so many of you, have done this job and it really contributes to peace of mind if you plan to drive your Airflow. If you are interested in buying newly manufactured replacement axles for your Chrysler, contact John Boyd – see the "Letter to the Editor" inside!

Don't forget to VOTE, and I look forward to seeing many of you at Chico!

Airflowingly,

Frank

CONTACTS/MEMBERSHIP INFO

The AIRFLOW CLUB OF AMERICA, INCORPORATED is a non-profit organization founded in June 1962. The Club is dedicated to the preservation, restoration, exhibition, and use of Chrysler and DeSoto Airflow cars and Dodge Airflow trucks.

The AIRFLOW NEWSLETTER, published six times each year, is the official publication of the Airflow Club of America. The opinions expressed by contributors do not necessarily reflect the Airflow Club of America's official policy. All manuscripts, articles, letters and ads are subject to being edited.

COPYRIGHT 2018

SUBMIT ALL MATERIAL TO:

Frank Daly
1651 209th PINE
Sammamish, WA 98074-4212
fwd9@hotmail.com

AIRFLOW CLUB OFFICERS

President: Frank Daly, Sammamish WA (425) 868-7448
Vice President: Tom Prince, Walnut, CA (909) 598-1086
Secretary: Doug Conran, Benton Harbor MI (269) 925-1950
Treasurer: Dennis Pitchford, San Jose CA (408) 559-7977

NATIONAL DIRECTORS

John Wagner, Athens GA (706) 546-0336
John Boyd, El Cajon, CA (619) 448-9491
John Librenjak, Riverside CA (951) 788-4678

REGIONAL DIRECTORS

Eastern: Jon Clulow, Pasadena MD (410) 255-2676
Central: Chandler Smith, Ft. Worth TX (817) 889-2335
Western: David Felderstein, Sacramento, CA (916) 451-2597

CLUB STAFF

Editor: Frank Daly, Sammamish WA (425) 868-7448
Mail Records: Mary Kathryn Eberly,
Mount Joy PA (717) 653-1094
Chief Judge: John Spinks, Pakenham,
Victoria, Australia 035 941 3829
Storekeeper: John Librenjak, Riverside CA (951) 788-4678
Newsletter Designer: Linda L. Eberly,
Mount Joy PA (717) 653-0234

MEMBERSHIP INFORMATION

Annual dues are \$30.00 US per year, \$35.00 US funds outside of North America. **MEMBERSHIP FORM AVAILABLE ON THE ACA WEBSITE.** Make all checks payable to Airflow Club of America. All memberships expire on December 31st. Mail membership requests or renewals to:

Dennis Pitchford

14947 Leigh Ave. • San Jose, CA 95124-4524
Phone: (408) 559-7977

CHANGE OF ADDRESS: Please send information to:

Mary Kathryn Eberly

207 West Main Street • Mount Joy, PA 17552-1213
Phone: (717) 653-1094 or email: mkeberly@pa.net

A Long Trip in an Old Car by John Boyd *part two*

Part 1 of this story was published earlier. That account left the California Caravan at Baker, Nevada, about to enter Utah on the Loneliest Highway in America. So far, the cars had run well, except for the Boyd's 1937 Chrysler C17 Airflow Eight overheating between Barstow, California, and Primm, Nevada. And all three Airflows overheating in the Great Basin Park. The first sign on US 50 said the next services were in Delta, Utah, 86 miles away.

Leaving the Park, we head east on US 50, the route to Delta. The cars are all running well. We are a bit disappointed by the overheating issues in Great Basin National Park, but there's nothing to be done right now. Our revised route avoids the Eisenhower Tunnel on I-70. This means there will also be no attempt on Pike's Peak; we aren't going to Colorado Springs. Interstate 80 might be a little cooler, since it's north of I-70, and it doesn't reach the altitudes of I-70. There is a well-known, long, steep, grade on I-80 east of Salt Lake City, but Dave knows a bypass that's only a few miles longer. When we get there.

About 42 miles out the 86-miles-of-no-services Loneliest Highway to Delta, the Boyd Airflow stops on a gentle up-hill grade. Dave and Phil pull in behind, and together with Mr. Spinks, raise the hood and inspect the engine. "It's vapor lock," someone says. "Did you have your electric booster fuel pump on?" Right. The electric pump. I do have one, but it's safe in the trunk, not installed. Never needed it before. John and Phil decide they can install it by the side of the road, which is where we already are. I have an infrared thermometer in the glove box; it says it's 99.8° F outside. The soil is loose sand, covered with dry desert grass already gone to seed in June. We know, because the seedpods are thorny on the skin and they stick to your socks. But there doesn't seem to be a good alternative to getting after it right here.

I have some tools and supplies, including electrical wire, connectors, tape, and even a small tubing cutter. Dave has a bit of neoprene fuel hose and some small hose clamps. I also have a Harbor Freight furniture-moving pad I brought along in case I needed to lie on the ground.

Best of all, I have a 10-by-10-foot pop-up shade I thought might be useful at the car show. Phil and John get the wheel off and crawl under the car to spot a good place for the electric pump. It's really hot.

They set to work with a will. Dave, Barbara and I cheer and fetch water, parts, and tools. Fender skirt off,



hubcap off. Wheel lug bolts loosened, axle jacked. Wheel off. Wheel tucked under the frame as a safety – the bottle jack is standing on a bit of 2-by-12 on soft sand. Tubing cutter. Fuel hose. Side-cutter pliers. Hose clamps, screw driver. Run some 14-gauge wire to the dash. Here's an unused concealed switch already installed, so wire that up. Test it: pump runs but the fuel stream is very weak. Reverse the power and ground connections -- now there's no output at all. After some head scratching, Phil or John suggests someone remove the gas cap and blow hard into the tank. These guys have a lot of experience; maybe the sock on the end of the fuel pickup is plugged. Dave volunteers, and there are immediate results: "Stop! Stop!! That's enough!" Gas is dripping off the rear axle housing. A new problem has been identified: the 1937 steel gas line is badly rusted – rusted through, in fact – for a couple of feet near the tank outlet. It leaks gas out under light pressure, and it lets air in under slight vacuum. The electric pump (and the mechanical pump, before we installed the electric) are getting a mixture of air and fuel at their inputs. These pumps can only pump liquids – they are useless on fuel vapor. The only solution is to replace the failed fuel line, and we don't have the three to four feet needed. We'll have to call for a tow.

Phil and John can do no more and are feeling the effects of the heat and exertion under the car, so we send them with our gratitude down the road to Delta, 44 miles away. Dave stays with Barbara and I to help us arrange for the tow. But there's no ATT cell service. And no Verizon service either. Nothing to do but drive toward Delta until we get a signal on someone's phone. About 10 miles farther we get a weak cellular signal on Dave's phone, and I call for a tow. The nearest truck our insurance company can get is 90 miles away on another job. Estimated arrival time to the broken Airflow is two hours. Since he's coming from the east, we agree to find a hotel for the night in Delta and meet the driver there.

But it's Friday night, and this is race weekend in Delta. There's not a single hotel room available. There are none in Nephi either – some kind of festival or pageant. The nearest room in the direction of I-80 is in Springville, 90 miles past Delta. Dave and Barbara head toward Spring-



Our desert workshop. A very good thing we had it in the car!

ville, along with Phil and John and both working Airflows, and I wait for the driver in Delta. There's time for a cold beer at the hotel restaurant. But it's nearly midnight when the trucker and I and our broken Airflow get to the Springville hotel.

Saturday morning I call Uber for a ride to an open Carquest to find some 5/16-inch fuel hose and some more hose clamps. Phil and John replace the corroded fuel line in the hotel parking lot, and we are on our way by 10 am or so. It's been a real learning experience already, and we are only a third the way there. For example, I learned that after you get the brakes safe, and the engine running on an old car, you should check the fuel lines. And I learned that standard towing insurance covers only the first 60 miles, and a tow can cost \$4 per mile for the next 80 miles.

We get around Salt Lake City with no issues, driving a bit north to take US-89 to I-84, a beautiful drive through a quiet, green valley. We stop for lunch in Evanston, Wyoming, then press on, driving 75 to 80 along I-80 across the state, arriving in Cheyenne in time for supper. The Airflows run great in the cool weather. Cheyenne is actually cold enough for jackets as we walk to the Outback Steakhouse. Amazingly, Aussie John Spinks has never had a Bloomin' Onion, so we remedy that with the first round of beers.

Sunday morning we cross the Nebraska border and stop at the state welcome center. The staff suggest seeing Scotts Bluff if we never have, and none of us have been there. So at Kimball we head north on NE-71 for a 45-mile detour. It's well worth it. The bluff itself rises from the wide, flat valley of the Platte river, and you can see for miles from the top. From the national monument, we follow the Platte southeast along NE-92, to rejoin I-80 at Ogallala. From there, we cruise to Lincoln for the night. Speed limit is mostly 80 mph, and we keep up with traffic. We are in Lincoln before dark, in time for hotel check-in and dinner. Driving to the Greek fast-food restaurant, I hear what sounds like a vacuum leak from under the hood. Checking it out the next morning, I find frayed brush wires under the clamp-cover on the generator, which seem to be dragging on the commutator. I wiggle the wires a bit and leave the cover off. The noise stops. It's charging.

Monday morning we drive a few miles east on 80, then head north on NE-77 toward Ponca, Nebraska. Phil, who has lived near Orland, California, for a long time, has relatives in Ponca that he hasn't seen for 40 years. We have the time, and it's nice to get off the interstate and view the Nebraska farmland. It brings back memories – I grew up a farm kid in central Minnesota.

After visits with Phil's two cousins, we have lunch in a small gas station café. I persuade the cook to put my fried chicken livers in a torpedo roll to make a chicken-liver poorboy, the first the café had ever served. A great lunch. There's road construction as we make our way through South Sioux City, Nebraska, into Sioux City, Iowa, and the going is slow. But it doesn't last long, and we head northeast on Iowa-60, which becomes MN-60 at the border, to Worthington. Then on to Windom, the Cottonwood County seat in southern Minnesota where I was born. Dave says we need to pose the cars in front of the sandstone county

courthouse, which is now closed. So we line them up, and get some pretty nice photos.

After a few minutes touring the town, we drive the remaining 65 miles to Mankato, our last overnight of the east-bound trip. We've booked the Mankato City Center hotel, and it's a pleasant

surprise. Newly renovated, the conference center is right in the center of town and next door to the Loose Moose Saloon, where we enjoy a dinner of beers and bar snacks, with a social hour in one of our hotel rooms afterward. Good times!

We are almost to our destination. But before we head to our convention hotel in the St Paul suburb of Hudson, Wisconsin, we spend an hour or two at Unique Specialty and Classic Motorcars on the edge of Mankato. Our convention host has recommended that we watch for the "big yellow barn" in Jordan as we head for the Twin Cities. We find it without difficulty – it's pretty hard to miss – Minnesota's largest candy store. There's a German section filled with the candies and treats Barbara and I recall from our eight years living in Germany, and we pick up a few items for our kids and grandkids.

Leaving the candy store, we need to drive south a block on MN-169 to make a U-turn and head for the Cities. Barbara and I are in the lead. The highway is a 60-mph, 4-lane divided road here, but there's U-turn lane, where I pause to wait for a gap in oncoming traffic. Here's one, and I start to make the turn. Just a few feet into the turn, I hear a loudish clunk, the engine races, and I have no more power to the wheels. A machine shop parking lot is across the road from the candy store we just left, and the car slowly rolls over the crown of the road in front of traffic. As the oncoming traffic brakes (I don't hear any honks), we coast across the road into the lot. Dave, Phil and John S follow as traffic allows. They are out of their cars, and from the looks on their faces, I briefly wonder if I am due for some driving instruction. But we are now friends, and they all know without asking that something is wrong with my Airflow. Barbara and I are very glad to be off the road.

Some quick investigation indicates a broken rear axle. Turns out these are not unheard of in Chrysler Airflows, and depending on where the break happens, sometimes a wheel comes off, wrecking a fender and instantly stopping the car. Unbelievably, Dave has a spare axle in his trunk! The machine shop cleans up and inspects the used bearings on the axle, and Phil and I spend an hour looking to borrow the necessary Mopar hub puller, without success. So I call for another tow, and the others head to the convention. The truck arrives in a half-hour and we are off. This time, the tow distance was 62 miles, just two miles over that pesky 60-mile limit. I had to pay another \$8. The driver unloaded the



Airflows lined up at sunset in Hudson, Wisconsin. Our is the first one in the foreground.



car under a shade tree in the hotel parking lot, and I joined the others in the bar.

John S and Phil borrowed the correct hub puller from a Minneapolis car dealer and collector, and they changed out the axle in the hotel parking lot. It took an hour or so, and the conventioners gathered around for the “How to replace an Airflow axle” seminar. With replaced axle, our Airflow ran well during club excursions, and it even took second place in the 1937 class – not bad for a survivor car. It also won the highly contested Hard Luck Award.

The rest of the story

Dave decided to have his car shipped back to California while he attended to some family business in Ohio. Phil also flew home and had his Airflow shipped with Dave’s. John Spinks rented a car and toured a portion of the USA before returning to his home in Australia. And Barbara and I headed back to California, unaccompanied this time. I’ll save the details of the return trip for another occasion, but I might just mention one more issue we had to deal with.

We took I-90 most of the way, looking for fresh scenery and cooler weather. Paused at the Badlands National Monument for a selfie. About 100 miles short of Billings, Montana, the ammeter was indicating no charge coming from the generator. For daylight driving, the Airflow doesn’t draw much current, and we had a dual-battery set up, so we pressed on. About 20 miles from Billings, coming up a long, moderate grade, the Airflow stopped again. It showed high engine temperature, but the radiator wasn’t boiling. The car would not start, even with the

electric fuel pump running. I called for a tow for the third time. This time the wait was estimated at two and a half hours. The truck had not shown after two and three-quarter hours. I tried the engine again; by now it had cooled down and it started right up. We cancelled the tow and drove on in to Billings. The next morning I found a better 6-volt pump at Napa. They had no generators for the car, but recommended the local “Generator and Starter Shop”. I was impressed that the shop name didn’t mention alternators, even though almost all cars since the mid 60s had no generator. I found it, and they agreed to rebuild the generator if I pulled it. I did so, and while they were working on it, I crawled under the car and replaced the electric fuel pump with a new, more powerful, noisier one. They did a complete rebuild of my generator and charged \$52. That would have been \$252 in San Diego, based on my previous experience.

The rest of the trip was interesting and mostly uneventful, driving down the west edge of Yellowstone National Park on the Gallatin Road in a thunderstorm (no, the rebuilt wiper motors were not up to the job), overnighing at a motor court in St Anthony, Idaho, spending one night at a fantastically nice casino hotel in Reno (for \$25!), driving down the Feather river canyon on CA 70, stopping at Phil’s house in Orland for a chat and some spare parts, then heading down I-5 for home. The car ran hot, indicating 200 to 205 most of the time, but never boiling. We paused at the Ft Tejon marker on the Grapevine to let the engine cool and enjoy the scenery. The return trip took us six days, including repair stops and visits.

Would we do it again? Our first thoughts were no, certainly not. But as we looked at the photos and video clips, reviewed the experience, and considered the challenges and the highlights of the trip, we have reconsidered. I think we would definitely do it again if we were part of a small caravan that included some expertise, some spare parts, and a commitment to stay together if at all possible. Barbara agrees. The shared experiences, the interdependence, the talk time – these all worked together to deepen friendships among us. Memorable for sure, challenging at times, but on the whole a great adventure.

Letters to the Editor



Dear Frank,

After experiencing a broken rear axle shaft on my 1937 C17 on the way to the convention last year, I decided I better replace both axles with new ones. I contacted all the club members who own Chrysler Airflows and have email, and we wound up ordering 34 sets. These are now all delivered. I’ve had a query or two from new members, and of course club members without email addresses likely knew nothing of the opportunity. I have obtained a quote from the supplier, Strange Engineering, who says he can make another, smaller order. The terms are \$290 each, \$580 per pair, plus shipping. The smallest run he will make is for five sets, 10 axle shafts. Please let the club know if anyone wants a set, he should contact me. If there are enough orders, we will buy another five sets. Last order, delivery was a couple of months after we sent the deposit.

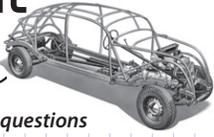


~John Boyd (858) 997-700

Frank,

April 19th is the 81st anniversary of my grandfathers purchase of his (now my) C-1 Airflow. The Chrysler Illinois Company of 2230 S. Michigan Ave. sold it to him for \$845.00 less \$86.00 for his trade-in, a 1927 Imperial 80 Coupe, #1394. If anyone knows the whereabouts of that vehicle I now have \$86.00 to spend. :)

~ Steve Kendall



Chrysler Rear Axle Shaft Removal & Replacement

by John Spinks



- 1**
- Raise the car and place on jack stands
 - Remove the rear road wheels.
 - Remove the axle shaft nut cotter, pin and nut. Note that the nut should be very tight so as to hold the drum up onto the axle taper.
 - Remove the brake drum using a drum puller.



4 Dial indicator scale set to zero.



7 The brake support assembly has been removed and set aside for refitting later.

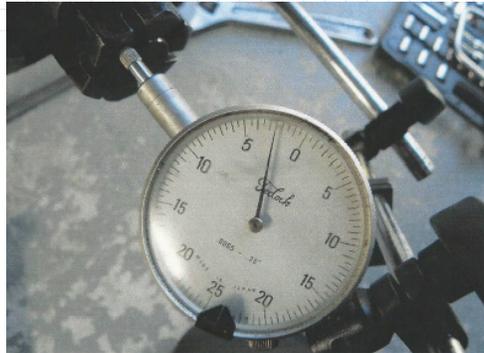
- 2** Before anything else is dismantled it would be advisable to measure the end play that exists in the axle bearings which should be somewhere between 0.0025" to 0.005".

A direct reading dial indicator should be mounted onto the brake support plate and the indicators needle should be placed into contact with the end of the axle shaft.

The axle should be pushed in as far as it will go and the dial indicator scale should be adjusted to zero.

The axle should then be drawn out as far as it will go and the reading noted on the dial indicators scale.

Hopefully the reading that you achieve will be somewhere between the previously stated limits, record results.



5 Direct reading Dial Indicator is reading 0.0025" which is the minimum clearance allowed.



8 The axle can be removed by pulling it from the housing; however if a suitable axle removing tool is not available then the large axle nut can be screwed back onto the end of the axle shaft and a bronze, brass or lead drift can be then used to tap the axle out of the axle housing.



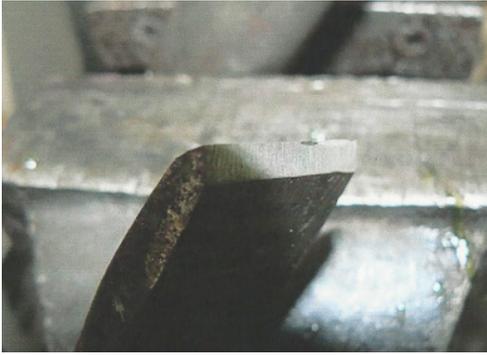
3 Direct reading dial indicator mounted to end of axle.



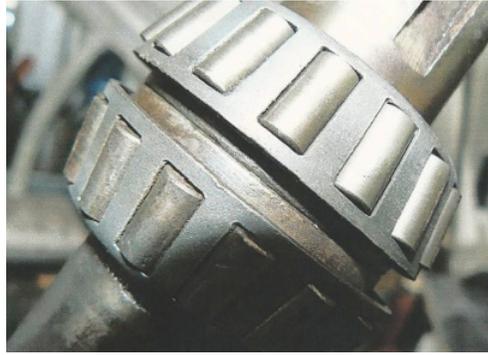
6 Remove the brake support assembly after removing the nuts that hold the oil seal to the end of the axle housing.



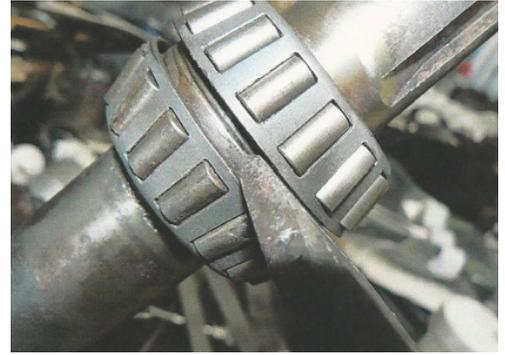
9 The axle shaft is nearly out of the axle housing and make sure that you support the axle shaft as it is withdrawn so as to minimize any damage to the inner seal.



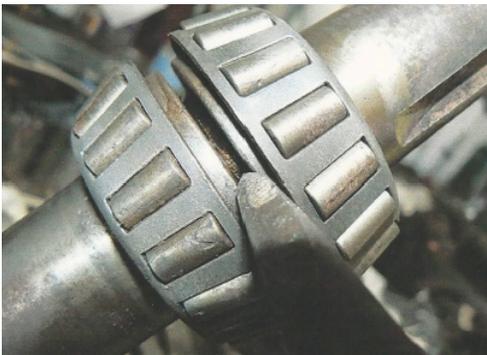
10 Make sure that you have a very substantial cold chisel and furthermore make sure it is shape. You will also require a reasonably large hammer.



11 The axle shaft assembly will look like this and as you can see the axle bearings are tapered and the back side of one bearing is fitted up tight against the other. Incidentally the bearings that you can see are on a sample axle only and are not being reused.



12 Grip the axle shaft between a pair of soft jaws in a bench vise. Place the sharp edge of the cold chisel firmly in the area where the bearings are backing against each other and smack the chisel with the heavy hammer. You may have to do this a few times at different points around the bearing.



13 •The bearings will move apart as can be seen in the photograph below but don't get too excited at this stage as one of the bearings must first be removed from the axle shaft so that its opposing bearing can be removed.

- It is imperative to keep the bearing cones in order so that they can be put back on their respective bearing cups, that is of course if you are reusing the original bearings
- Also do remember that the end play that you measured prior to removing the axle shaft will not change if you install the same bearings back onto a new axle.



14 • One of the bearings can be removed by very carefully tapping the edge of the bearing in the area where the point of the chisel is contacting the bearing surface that is pressed onto the shaft. **Be very careful not to hit the bearing roller cage as this will bend very easily and render the bearing destroyed.**
• I don't like taking this risk and prefer to employ a bearing spread plate after I have separated the bearings far enough as the photo shows below and then a hydraulic press to remove the bearings.



15 The bearing spread plate is adjustable via the long bolts and nuts and the inner edges of the plates have been wasted away so that they will fit in around the bearing close to the axle shaft.

The assembly is then set in the press.

The hydraulic press then does all of the hard work for you.



16 The bearing is then removed as shown and is ready for refitting to another axle shaft or whatever. Remember to support the axle shaft from underneath during the pressing process so as to ensure that the axle shaft does not drop out and become damaged, or worse still land on your foot which will definitely hurt big time.



17 The inner axle bearing is removed in the following way in the hydraulic press however I have machined up a special sized steel ring that fits over the end of the axle with an internal bore in the ring that is slightly larger than the stepped shoulder on the axle where the bearings back up to.

• These methods can be employed in reverse for installing the bearings back onto an axle shaft or as an alternative they could be taped on using a soft metal drift that only contacts the centre most portion of the bearing. Never hit the outer roller carrier as this will surely destroy the bearing.

• Another method that can be employed is for the bearing to be heated up to approximately 200°F in oil and whilst the bearing is hot it would have expanded enough so that it will become a slip fit onto the axle. This method however must be undertaken with extreme caution as the oil can catch fire or you can become burnt with hot oil. Also it is very easy to tilt the bearing at a slight angle and it will jamb on the axle.



18 • The next issue to deal with is if you have found that the axle end play is outside of the required settings.

• In this case the inner bearing cup should be removed from the end of the axle housing and shim plates must either be removed to reduce the measured end play down to the required end play or added in the case of the end play not being sufficient.

• It is extremely difficult if not impossible to remove the inner bearing cup without having the correct type of bearing cup removing tool (shown above).



21 • The photo is of the SG Desoto bearing fit up and is used as an example only but shows the inner bearing cup being installed with the aid of a soft metal drift. The bearing cup should be driven completely home into the housing. Being completely home is easily determined by a change in tone when the drift is hit with a mallet.

• The axle shaft should then be refitted back into the axle housing and the brake support plate seal, the axle brake support plate and axle shaft bearing oil seal should be bolted up.

• Once again the process of checking the axle shaft end play must be measured and hopefully if you have guessed correctly you won't have to go repeat the exercise until you get it right.

19 • The bearing cup removing tool has a series of collets on one end which can be collapsed by screwing the hexagonal nut out and then the tool is inserted into the bearing cup so that the lip of the extracting tool are behind the cup.

• The collets are then expanded by turning the hexagonal nut clockwise until the lip from each collet is firmly behind the bearing cup. At this point the slide hammer attachment is then operated so as to pull the bearing cup from the axle housing.

• This tool works very well however it is extremely expensive to purchase, say \$500.00 AUD. We have one of these tools in our workshop which we would be willing to loan out at anytime should you need it.

• Once the inner bearing cup is removed then the total shim thickness can be measured using a 0-1" micrometer. When you know the total shim thickness it is a simple calculation to determine what you require.



20 • Shim stock is available through most NAPA Store and a good quality fabric scissor will cut the mild steel shim stock to the shape that you require using one of the shims as a template.

• Look closely and you can see the shims between axle housing shoulder and the bearing cup.



22 If everything lands where it should then the axle shaft bearings should be packed with wheel bearing grease and fitted up to housing as per the next photograph. Once again the SG Desoto axle shaft set up is being used as an example.



23 • The outer bearing cup should be installed along with a new gasket, seal and brake support plate.

- Use a sealer on everything.
- Tighten all components evenly
- Hopefully you guessed correctly and everything is ok.



24 Gaskets must be sealed with the aid of some sort of chemical management



25 Brake support plate fitted up less the axle shaft bearing oil seal.



Chrysler Airflow Axle Replacement, Additional Info

by John Boyd

I'm sending this out to everyone who participated in the group buy of replacement Strange Engineering axles for Chrysler Airflows in hope it will prove useful when you install your new kit. I recommend you install them soon if you drive your Chrysler. Having replacements available in case of failure is a plus of course, and now you have them. But based on my experience, I do NOT need another encounter with a broken axle while driving! Mine are now installed.

In the previous Technical Tip, John Spinks, ACA Chief Judge, gave a very thorough treatment of the topic. You will note that John covers removal of wheel bearings so they can be re-used. You can skip this step if, like me, you plan to replace bearings and seals with new. We owe John for this, and his many other fine contributions to our knowledge of Airflows.

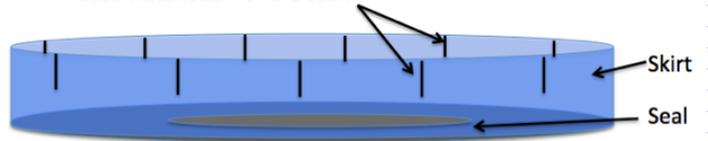
Can you do the job yourself? Possibly, but you will want access to some special tools not present in your average suburban garage: a hydraulic press, a MOPAR hub puller, and a seal and bearing race puller. We used a slide hammer with a set of attachments to fit various diameter seals and races on my job. I took the car to an auto repair shop who let me loiter, coach, and help.

These are the parts I ordered in addition to the axles: 4 tapered roller cones, part number 16284; 4 tapered roller cups, part number 16143; 2 outer seals, SKF 19773; 2 inner seals, SKF 14383*. I got the bearings at Kaman Bearings and the first round of SKF seals from my local NAPA. Both vendors had to order the parts — they weren't in stock.

The inner seals were very difficult to install, and we wound up ruining the Taiwan-sourced SKF 14383. The seal shell was made of thin material, and as they are a press fit into the seal bushing inside the axle housing, both were bent and destroyed before we got them in. We found a National seal (National number 473226) equivalent to the 14383 that was much stronger, and after modification, we got one installed. There were no more of them in San Diego County, however, so I went shopping for a neoprene seal to fit inside a 2.500" bushing, fit a 1.375" shaft, and be less than 0.5" thick. Thinner is better. The Carquest store found a 7687S seal in stock and we were able to install it. This is a different seal from the 14383, but by using the same trick we used with the National 14383 equivalent, we were able to install it. The key turned out to be a strong seal shell, not the flimsy type the SKFs had. Note that press fit, as these are designed, means the seal OD is larger than the bushing ID. To get them started, after several failed attempts, I used a Dremel tool with a very thin cutting wheel to saw slots around the skirt of the new seal. These were bent inward, ever so slightly, to reduce the diameter of the seal edge so it could be inserted into the bushing. My mechanic used a soft metal disk that fit the seal to drive it in, and a larger one to fit the cup to install it. Here's a sketch of the slotting I described. Note that the slots could crack through to the seal disk in time, so it's a good idea to dab some oil-proof RTV sealant around the back

of the seal before you install it.

Saw slots part-way across around the rim of the seal and bend the resulting tabs in very slightly to ease installation of the seal.



One other issue to watch out for. Airflow axles are built with a Zerk fitting at outer ends of the axle housing to allow greasing the wheel bearings without disassembly. A grease passage runs from the Zerk to the inside of the inner seal bushing in the axle. If the inner seal is installed so it is flush with the outer edge of the bushing, it will block the grease passage. To avoid this issue, be sure to drive the seal all the way home, and verify you can see the grease passage opening. See the tiny print and arrow overlaid on the photo.



A final thought. If you are sure your inner seals are not leaking, and the inner bearing race (cup) is in fine shape, you might consider leaving the current seal and cup in place. This will save a lot of time and effort, at the cost of driving with a used-but-good inner bearing cup. As far as I can tell, you cannot get the bearing cup out without pulling the seal with it, and that will in all probability ruin the seal.

WELCOME NEW MEMBERS

Mike Beach

(son of Ken, Nathan is son of Mike)
7108 229th Street SW
Mountlake Terrace, WA 98043
206-641-6279
mikeabeach@hotmail.com
No Car

Christian & Elke Mueller

Dahlienstrasse 3
Marburg, 35043 Germany
+49-6421-480-9319
cell: +49-173-387-4945
christian.mueller@saint-gobain.com
1935 DeSoto SG 4-door Sedan

Jon & Kim Kanas

715 Vivian Street
Longmont, CO 80501
303-678-0658
kanas@qadas.com
1936 Chrysler C-9 4-door, 6606444

Craig & Michele Weiss & son, Nathaniel (Craig's father Robert was a former member)

5105 Valley Trail
West Bend, WI 53095
262-677-0184, cell: 414-640-3346;
craig.weiss@ge.com
1935 DeSoto SG Coupe, 5085790,
SG-4624 (inherited from father)

ORDERING INFORMATION

Items guaranteed. **Postage: 10 percent of total order for items shipped to US locations. International member's orders must be paid in USA dollar funds with added money for postage.** Checks must be drawn on a USA bank. Prices are always subject to change. Continuing stock of items not assured. Clearly print your order on plain paper and mail with check or money order, made to "The Airflow Club" to:

DENNIS PITCHFORD, TREASURER, ACA,
1947 LEIGH AVENUE • SAN JOSE, CA 95124-4524

STANDARDS OF CORRECTNESS MANUAL Restore your airflow to factory correct condition. Extremely useful to the airflow restorer. \$15.00

AIRFLOW CLUB OF AMERICA NEWSLETTERS AVAILABLE ON USB FLASH DRIVE. The current version includes all of the Newsletters from July 1962 through December 2014. Fully searchable by word or phrase, as described in the November 2008 Newsletter. Scanned versions of the Newsletters until 1999. Since then they have been created and archived digitally. \$25 ea.

"THE HISTORY OF THE AIRFLOW CAR" Reprint of the Howard Irwin feature from August 1977 "Scientific American." An excellent piece. \$4.

"CW – THE QUINTESSENTIAL STREAMLINER" 17-page copy of November 1994 "NL" written by Bob Joynt and Beverly Rae Kimes. The story of Airflow Chrysler CW limousines. Read about these giant 146-1/2" wheelbase sedans. \$4.

VIDEO #1 First 3 titles are original 1930's factory films. "Fashioned by Function" - factory promotional: "Trails of Triumph" Harry Hartz at Bonneville; "Safety With a Thrill" - 1934 Chicago World's Fair; "Memoirs of an Engineer" - Carl Breer's Biography. "Airflow Development Pictures" from 1986 Chrysler Corp. slide set. 90 min. VHS or DVD only \$20.

VIDEO #2 "A Pictorial History on the Development of the Chrysler Airflow" made by William Z. Breer. 54 minutes. Made by William Breer for the 1996 Ft. Worth, TX National Meet. Record of Carl Breer's work on Airflows. VHS or DVD only \$20.

TECHNICAL FLASH DRIVE USB drive containing revised and extended index of all newsletter tips and technical articles through 2017. Applicable to all 1934 to 1937 Airflow models. Bonus material: 2016 club roster soft copy, a searchable version of the Parts and Service Providers handout, the Airflow Chrysler Body Service Manual, and the Standards of Correctness Requirements Report. Produced by Jon Clulow and John Boyd. \$25.

HISTORICAL CHRYSLER BULLETIN, OCTOBER 1963 This reprint is not 100% correct historically, but reflects Chrysler Corporation's view of the Airflow as of the early 1960's. \$8.

1934 CHRYSLER SHOP MANUAL 140+ pages. \$30. This reprint is 100% flawless in both photos and text. Tremendous reference!

BODY MANUAL Exact reproduction of 1934 Chrysler Manual. Can be used for DeSoto, also. \$20.

OWNER'S MANUALS These seven instruction books are exact reproductions of originals: (1) 1934 DeSoto SE, 95 pages; (2) 1935 Chrysler C-1, 48 pages; (3) 1935 Chrysler C-2, 48 pages; (4) 1936 DeSoto S-2 Manual with owner i.d. card and printed envelope; (5) 1936 Chrysler C-9 Manual; (6) 1936 Chrysler C-10, 48 pages; (7) 1937 Chrysler C-17, 48 pages. \$18 each.

AIRFLOW III DESOTO BROCHURE Over 40 photos in this 24 page, reprint of 7" x 9" sales brochure. \$10.

1936 DESOTO AIRFLOW OR AIR STREAM SPEEDOMETER GAUGE OR CLOCK FACES - \$150 set.

RUBBER STAMP 1937 Chrysler Airflow C 17 4-dr sedan. \$10.

NAME BUTTON A must for all ACA gatherings. Features Club's logo and your name. Furnish name as you want it on the finished button. \$5.

ACA MYLAR DECALS Red, white, blue. One for window: one for bumper. 3" x 4". \$3 pair.

ACA METAL EMBLEM Club logo in full color on heavy aluminum. 3" x 4-1/2". Specify mounting tab "up" or "down". Use on license plate. \$8.

FIREWALL PLATES For 1934 to 1942 models. Red for Chrysler or black for DeSoto. Specify color. \$7.

HEADLIGHT MOUNTING PADS Fits all Chrysler Airflow models. \$32 pair.

HEEL PADS For driver's side carpeting. Used in Chrysler & DeSoto Airflows. Specify black or brown. \$40.

FRONT BUMPER METAL RINGS for 1935 and 1936 DeSoto and 1935 through 1937 Chrysler Airflows. Made of stainless steel, they fit in the rubber O-rings that the Club Store also sells. The price for the metal rings is \$65.00 a pair plus shipping.

RUBBER BUMPER GROMMETS Fits behind the stainless rings on 1935-1937 models. \$25 pair.

PEDAL PADS Reproductions. Specify black or brown. For clutch and brake pedals. \$20 pair.

GAS PEDAL Reproductions for Airflows & others. Black or brown. \$25.

GEARSHIFT BOOT Reproductions for Airflows & others. Black or brown. \$25

COWL VENT WEATHER STRIP Fits all Airflow DeSotos & Chryslers. \$30 pair.

FRONT DOOR VENT RUBBER SEALS Fits all 1935 to 1937 Airflows. Can modify to fit 1934. \$125 pair.

FRONT DOOR VENT RUBBER SEAL Fits all 1934 Airflows. \$215 pair.

REAR WINDOW RUBBER SEAL Fits windows above trunk on all Airflow models. \$4 per foot.

OUTSIDE RUBBER WINDSHIELD FRAME SEALS For all Airflows. Enough to make one pair. With instructions. \$50.

INSIDE RUBBER WINDSHIELD FRAME SEALS Fits between the frame and the body ridge. Also used on doorsill plates. \$4 per foot.

REAR QUARTER VENT WINDOW RUBBERS Fits these 4-dr sedans Airflows only...CU, C-1, C-9, SE, SG, S-2. \$160 pair.

"ANTI-RATTLE" WINDOW SNUBBERS \$2.00 each

"ANTI-RATTLE" FENDER SKIRT GROMMETS Set of upper 4 pieces, \$32, or lower 4 pieces \$42.

"SERVICE C INSTALLATION NOTES for FACTORY AUTHORIZED PHILCO RADIOS" 17 pages for all Airflow models 1934-1937. \$7.

HOOD PROP SPRINGS for '35, '36, '37 Airflow Chryslers & '35, '36 Airflow DeSotos. Specify right or left. \$10 each.

HUBCAP SKINS for 1934-36 Airflow Chryslers and 1934-35 and 36 DeSotos. These skins were produced in New Zealand by club member David Oliver. Skins are made of brass and properly chrome plated. The cost of each Chrysler and 1934-35 DeSoto hubcap skin is \$135 and does not include shipping. Each 1936 DeSoto hubcap skin is \$140.00. Shipping is billed when skins are shipped to you.

CHRYSLER FUEL PUMP HEAT SHIELD a new item for 2008. Sorry, no shields for DeSoto as yet. Each heat shield only \$20.00.

AIRFLOW REPRODUCTION DECAL Warning decal for Aircleaner and Silencer. Decal #DD617 is for the '34 and '35 Chrysler and '34 - '36 DeSoto. Each decal: \$6.50 plus 50¢ shipping.



WANTED: C-17: Front seat trim piece, drivers side. This is the piece that is usually wood grain painted and attaches along the side of the seat. **James Zurek**, 619-425-1398, sartana@cox.net (3/18)

FOR SALE: Right headlight lens and both garnish moldings for 1934 Chrysler CY Airflow. The moldings fit into an indentation in the lens like an inlay. \$500 plus shipping. **Mark Becker** 904-635-3548. (3/18)



FOR SALE: Automobile Quarterly books volume one number 1 through volume forty four number 1. Complete set, great shape \$3000.00 plus postage. Dodge Airflow Truck models, various sizes and prices plus postage. Many little tech says booklets@ \$2.00 **Charles S Hill**, 1411 Matthew Ct. Gardnerville NV 89460. 775-265-0548 (3/18)

FOR SALE: 1936 Chrysler Imperial Airflow, C-10 Model, 40,700 actual miles, Beautiful Car, show or drive, many extra parts, selling due to death. Marshalltown, IA \$50,000 OBO 641-750-3090 ask for **Bob** (3/18)



WANTED: for DeSoto SG Rod bearings, 0.030 under.

FOR SALE: aluminum head for SE or S2, surfaced and boiled out. \$900 plus shipping. **John Cox**, 2700 Hammel Rd. Eagle Point, Oregon 97524; 541-826-3387; email: jcwindmills@centurylink.net (1/18)

FOR SALE: Vintage 1935 Airflow pedal car (like the one shown). The car will be painted the color of your car or any other color you provide; comes with new wheels, tires, hubcaps, windshield, headlights, bumper, custom manufactured padded seat in the correct airflow material with correct number of pleats, custom pin stripping and air brushing for the grill and pin stripping for the side of the car and wheels. \$3,750. Call **Terry Brinson**, 530-865-4380, with questions and more pictures. (01/18)



WANTED : One hubcap for DeSoto SG Airflow. Need only one but would consider buying set if necessary. Contact **Larry Ferreira**, 4512 Barnhart Rd. Ceres, CA 95307, call 209-604-8268 or e-mail ljferreira@aol.com (11/17)



FOR SALE : Health issues and age force the sale of my **1935 Chrysler C3 LeBaron Airflow.** I've owned the car for 68 years. Starts and runs great—everything works. I have original bent key, five almost new whitewall tires, new glass installed throughout, new window channels, new rubbers in and out, new original green paint color six months ago. Only thing missing is the radio, but original head and cables are in the car. Factory deluxe heater. All original upholstery removed for patterns for replacement fabric—marked for easy identification. For more information please refer to the May/June 2015 issue of the Airflow Newsletter. Asking \$24,000. Will consider offers. NOTE: 1935 California license plates stay with the car. **Dale Grabow**, 509-685-2276 or email 35C3Lebarron@gmail.com (11/17)



WANTED: I am still looking for a **replacement passenger side fender skirt.** It needs to be from a 1935 or 1936 DeSoto. The DeSoto and small Chrysler Airflow skirts are smaller than those for the Airflow Imperials (CV, C2, C10, or C17). Also, the Chrysler skirts have an indentation in the welt across the bottom of the skirt whereas the DeSoto welt goes straight across. Any help finding a replacement will be greatly appreciated. **Jim Lightfoot** (805) 522-4040.(11/17)

FOR SALE : NSG Parts for Sale 1. Left rear fender with rust damage at running board attachment – \$100. **2.** Interior windshield trim, L&R, good condition – \$50 both. **3.** Hood ornament Flying Lady. Excellent refurbished – \$150. Pictures available for those interested. Contact **Bruce James**, muskox11@gmail.com for photos. (11/17)

FOR SALE : 1936 Chrysler Airflow. Offers entertained. Contact **Marge Pfeleiderer** at (952) 449-0264. (11/17)



FOR SALE: Taking orders for **newly reproduced aluminum cylinder heads for all DeSoto and Chrysler Airflows.** These parts are made from the proven Norm Stottlemyer tooling. Heads will be produced in Ontario, CA. They will be poured from 356 alloy and given a T6 heat treatment. Fully machined and ready to install. Price for the DeSoto cylinder head is \$1,800 and the Chrysler cylinder head is \$2,000, both plus shipping and insurance. Please contact **John Librenjak** 951-788-4678 (H) or 951-880-8985 (C). (09/17)

Advertisements will run for TWO issues (four months).

Please submit your ads or ad renewals thirty days before the first issue in which you wish the ad to appear.

Submit all advertisements IN WRITING via mail or email to the Newsletter Editor, address on page two of each Newsletter.

TELEPHONE SUBMITTALS WILL NOT BE ACCEPTED.



Old Cars

Dear Editor,

November 29, 2017

Congratulations on winning a 2016 Golden Quill Award! The awards were announced in the May 4, 2017, issue of *Old Cars* and were also posted online to the website www.oldcarsweekly.com.

Chief Judge Dr. Gerald Perschbacher — an editor himself — worked in conjunction with the *Old Cars* editorial staff in selecting the winners. Page count and publication format are major factors in establishing the categories used for judging. Content is then judged on the basis of page count; use of color and/or black-and-white visuals; quality of writing and photographs; creativity; and balance of articles (human interest, technical, historical, events, ads, classified, columns, etc.).

Judging of the 2017 awards will commence after clubs submit their final publications for this year. Winners will then be announced in a May 2018 issue of *Old Cars*.

We appreciate your interest in the Golden Quill Award and hope this award is a valued reward for your editorial efforts put forth in the interest of your club.

Sincerely,

Angelo Van Bogart
Editor, *Old Cars*
700 E. State St.
Iola, WI 54990
715-445-4612, ext. 13228
angelo.vanbogart@fwmedia.com