

Central Pennsylvania *Corvair* Club

NOVEMBER 2017

The Four Wheel Independent



LOOK INSIDE
Corvair Day
Gettysburg Tour
ZDDP vs Wear Test Analysis
and much more...

C.P.C.C. OFFICERS

President

John Berkheimer
 (a.k.a. **JOHN** *all caps*)
 403 Dart Drive
 Hanover, PA 17331
 (717) 632-5617
 Email: jhbmail1@comcast.net

Vice-President

John Johnson
 (a.k.a **John** *small letters*)
 550 Gross Road
 Fawn Grove, PA 17321
 (717) 456-5139
 corvair@zoominternet.net

Secretary

Earl Holmes
 1511 Hicks Drive
 Dauphin, PA 17018
 (717) 921-8124
 Email: earlzgames@comcast.net

Treasurer

Sandy Holmes
 1511 Hicks Drive
 Dauphin, PA 17018
 (717) 921-8124
 Email: w061772@comcast.net

Board Members

Jim and Linda Enfield
 11925 High Point Road
 Felton, PA 17322
 (717) 244-7181
 Email: jte448@zoominternet.net

Joe Darinsig
 1751 Chesley Road
 York, PA 17403-4001
 (717)845-9347
 joedarinsig@yahoo.com

Newsletter/Web Editor

Carol Trimper
 30 Wheaton Drive
 Littlestown, PA 17340
 (717) 359-0712
 Email: lcl@pa.net

Club Photographer

Lou Trimper
 30 Wheaton Drive
 Littlestown, PA 17340
 (717) 359-0712
 Email: lcl@pa.net

The Corvair Society of America (CORSA)

“Founded in 1969 by and for those who still appreciate the Corvair automobile”

Central Pennsylvania Corvair Club strongly encourages all members to become members of the Corvair Society of America (CORSA). Anyone with a fondness of the Corvair automobile will benefit from CORSA membership. In addition, we will all benefit by maintaining a strong national presence to lobby our interests and organize our collective purposes.

PLEASE do not overlook the potential value of a CORSA membership. Try it out. Your first year will cost only \$45. If you share our enthusiasm for these superbly engineered and styled cars, why not join our Society today? Domestic dues are only \$45 for 1 year/ \$90 for 26 months (two months free!) We are sure you will find it a worthy and rewarding investment!

Visit: <https://www.corvair.org/index.php/documents> to register online.

CORSA
 P.O. BOX 607
 Lemont, IL
 60439-0607
www.corvair.org



In Our Thoughts & Prayers



Norm Masenheimer

was in a single car accident the 1st of September. He was in the hospital for a few weeks and was eventually moved to Hanover Hall for rehabilitation. Lou and I stopped by and saw him recently. He has been through a lot and was in a lot of pain for awhile. He is feeling much better now. He now has a pacemaker. And he is still seeing many other doctors for other issues which has been difficult and frustrating for him. His spirits are up which was good to see. He is still very witty and can still make you smile and laugh with his sense of humor! He doesn't have a car right now as his was demolished in the accident, but he reminded us that he still has his Corvair that he can always use. He is hoping to be home before you read this article. Please keep him in your thoughts and prayers. Below is Norm's home address if you would like to send him a card. I'm sure he would love to hear from his Corvair friends.

156 George Street
 Hanover, PA 17332

P.S. Norm's Birthday is Nov. 7th. See page 7.

PEANUTS



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GETTYSBURG TOUR - OCTOBER 14, 2017



ZDDP vs Wear Test Analysis

from Corvette Forum

Submitted by
Dave Steigauf



Quaker State's New "Defy" Motor Oil – Lab Test and Wear Test Data

This synthetic blend motor oil costs \$5.29 per quart at Pep Boys. So, it is roughly half the price of a name brand, top of the line, full synthetic motor oil.

Some info/claims on the bottle:

- * For high mileage engines with over 75,000 miles
- * Boosted zinc for extra protection
- * Prevents up to 98% of future wear
- * Protects high wear surfaces while still being friendly to catalytic converters and other emissions equipment
- * Has seal swell to preserve worn and leaking seals
- * Made by Pennzoil-Quaker State Company

Here are the results of the Lab Test, which was done by ALS Tribology (formerly Staveley Labs) in Sparks, Nevada:

Quaker State 10W30 Defy, API SL synthetic blend (lab tested 2012)

NOTE: An API SL rating is for 2004 and older automotive engines. This rating was replaced by the API SM rating at the end of November 2004, when the 2005 models were already available.

Silicon = 3 ppm (anti-foaming agent in new oil, but in used oil, certain gasket materials and dirt can also add to this number)

Boron = 170 ppm (detergent/dispersant, anti-deposit buildup/anti-sludge)

Magnesium = 8 ppm (detergent/dispersant, anti-deposit buildup/anti-sludge)

Calcium = 2652 ppm (detergent/dispersant, anti-deposit buildup/anti-sludge)

Barium = 0 ppm (detergent/dispersant, anti-deposit buildup/anti-sludge)

Total detergent/dispersant (anti-deposit buildup/anti-sludge) = 2830 ppm

Zinc = 1221 ppm (anti-wear)

Phos = 955 ppm (anti-wear)

Moly = 99 ppm (anti-wear)

Total anti-wear = 2275 ppm

Potassium = 4 ppm (anti-freeze corrosion inhibitor)

Sodium = 0 ppm (anti-freeze corrosion inhibitor)

TBN = 6.5 (Total Base Number is an acid neutralizer to prevent corrosion. Most gasoline engine motor oils start with TBN around 8 or 9. And in use, this becomes depleted over time as mileage accumulates)

Viscosity (cSt at 100°C) = 11.7 (cSt range for SAE 30 is 9.3 to 12.4) And cSt (centistokes) in general terms, represents an oil's thickness

Here you can compare the new Defy motor oil above, to Quaker State's top of the line mainstream motor oil for new vehicles:

Quaker State 5W30 Ultimate Durability, API SN synthetic (lab tested 2011)

Silicon = 3 ppm (anti-foaming agent in new oil, but in used oil, certain gasket materials and dirt can also add to this number)

Boron = <5 ppm (detergent/dispersant, anti-deposit buildup/anti-sludge)

Magnesium = 10 ppm (detergent/dispersant, anti-deposit buildup/anti-sludge)

Calcium = 2831 ppm (detergent/dispersant, anti-deposit buildup/anti-sludge)

Barium = 0 ppm (detergent/dispersant, anti-deposit buildup/anti-sludge)

Total detergent/dispersant (anti-deposit buildup/anti-sludge) = 2845 ppm

Zinc = 877 ppm (anti-wear)

Phos = 921 ppm (anti-wear)

Moly = 72 ppm (anti-wear)

Total anti-wear = 1870 ppm

Potassium = <5 ppm (anti-freeze corrosion inhibitor)

Sodium = 0 ppm (anti-freeze corrosion inhibitor)

TBN = 7.9 (Total Base Number is an acid neutralizer to prevent corrosion. Most gasoline engine motor oils start with TBN around 8 or 9. And in use, this becomes depleted over time as mileage accumulates)

Viscosity (cSt at 100°C) = 10.5 (cSt range for SAE 30 is 9.3 to 12.4) and cSt (centistokes) in general terms, represents an oil's thickness.

Wear Test Analysis continued from Page 4

Let's compare the wear protection capability of these two oils above, by looking at how their "wear test" results came out. But first, here's some info about that oil "wear testing", just so that everyone is on the same page. The wear testing is a motor oil friction test under load, which subjects the oil to stresses beyond what it will see in an actual running engine. That way you can separate outstanding oils from ordinary oils without having to wait for 100,000 miles to see what happened.

The oil wear test is also what you might call a blind test, in that the test equipment does not know what oil it is testing, it just tests them all head to head. It doesn't care what brand the oil is. It doesn't care if it is a modern API certified low zinc oil or an older type traditional high zinc oil. It doesn't care about how much detergent is in the oil. It doesn't care what the Lab Test print out shows. All it cares about is the size of the wear scar generated. The smaller the scar, the better the oil protected against wear, and the higher the psi value.

You might even say that the oil wear testing is somewhat like a ¼ mile pass, in that, in making a pass, all that matters is the time you put up on the board, which shows up on your time slip. The clock doesn't care if you are running a GM, Ford or Mopar. It doesn't care what your engine's build sheet says, and it doesn't even care about what your dyno print out says. It only cares about the performance you can lay down.

In heads up racing, the quickest ET wins, no matter what (ignoring any reaction time differences of course). GM, Ford or Mopar, it just doesn't matter. It's simply the real deal, no matter what anyone expected. And that is why we run the races for real, rather than just looking at spec sheets.

And in head to head, or call it heads up oil wear testing, the smallest wear scar wins, no matter what. High zinc or low zinc, it just doesn't matter. It's simply the real deal, no matter what anyone expected. And that is why I test the oil for real, rather than just looking at spec sheets.

The oil wear test equipment and test

procedure used, have shown that some "high zinc" oils were outstanding, while some "high zinc" oils were not. So, it makes no sense to say that high zinc oils will always produce outstanding results and always provide excellent protection, when some DO NOT.

The testing has also shown that some modern "low zinc" API certified oils were outstanding, while some "low zinc" oils were not. So, it makes no sense to say that low zinc oils cannot produce outstanding results, when some DO produce outstanding results right before your eyes. And believe me, I was as surprised as anyone else, that modern API oils could be so good.

So, that proves to me, that the oil companies are no dummies, and that they absolutely know what they are doing. And it has been common knowledge for years in the oil industry, that alternate chemistry is available that provides as good or better wear protection than zinc/phos (the use depends on cost and application requirements). And that alternate chemistry is just what they use in modern oils in order to reduce the zinc/phos levels and meet the necessary requirements. Few things in this world are limited to a single way of doing things. And motor oil additives are no different.

So, if you didn't perform actual real world dynamic "wear testing", you would never know the true story about what oils are outstanding, and what oils are only ordinary. But, as for the modern "low zinc" API certified oils tested, I did only test mostly newer API SN oils, and a few API SM oils. So, I can't speak for how good or bad the older low zinc oils may have been. Perhaps those older reduced zinc oils were not all that great, and may have been where the reduced zinc oils got their bad reputation.

But, flat tappet lobe/lifter failures still do crop up here and there, even in correctly built motors, and even with high zinc oils being used. That would indicate that the failures occur because of poor parts quality rather than because of the oil being used, or because of the build quality.

And as a further example of oil not being an issue with flat tappet cams, consider this. I have a Hotrodder buddy with a

heavy foot, who has a '69, 4 speed 'Vette daily driver. He is running a solid flat tappet, 500 HP, 383ci SBC motor in it. He's run that motor for several years now, and has over 25,000 miles on it, with absolutely no lobe/lifter issues what so ever.

And the oil he uses is plain old conventional, low zinc, API certified 5W30 Castrol GTX dino oil. And that oil produced a "load carrying capacity/film strength" of 95,392 psi in my wear testing. Ranking it an impressive 18th out of the 48 oils I've wear tested, putting it in the OUTSTANDING PROTECTION category. So, this is a perfect example of a real running flat tappet engine that is perfectly happy on low zinc oil (830 ppm in the API SN version and 888 ppm in the API SM version), which reflects exactly what my testing has shown.

"Lab Testing" and "Wear Testing" analysis shows that extra zinc does NOT provide EXTRA protection, it only provides LONGER protection. And this is not a new discovery at all. In fact, for what it's worth, Ed Hackett wrote an article some years ago, titled "More than you ever wanted to know about Motor Oil". And in that article he says the exact same thing, so it's been well known for a long time. You can Google his article if you like, and see for yourself.

Keep in mind, zinc levels do NOT hold steady. Zinc is depleted as it is sacrificed to protect highly loaded parts, and is used up over time. High Performance engines will use up zinc faster than stock engines, due to their heavily loaded parts. And that is the real reason that High Performance Oils have higher levels of zinc. Because it is expected that the zinc will be used up at a faster rate in High Performance applications. So, those beloved high zinc levels will NOT stay high, unless you change your oil frequently.

And you can see this drop in zinc (and phos, and moly) for yourself, if you send an oil sample into a reputable lab, before and after use. NOTE: I'm really not trying to do any bashing here, but I've had problems with Blackstone Labs providing bogus data in the past, where used oil numbers radically increased, which is

Wear Test Analysis continued on Page 8

C.P.C.C BULLETIN BOARD

Corvair Items for Sale

I'm Looking for a 67-69 steering box for my v-8 project. If you have one you like to sell or trade let me know.
 Contact Larry Asheuer
 (267) 994-1569.
 Philadelphia Corvair Association



*Mark Your Calendar
 Christmas Party
 January 6, 2018
 Perkins Restaurant in
 York PA
 at 1:30 P.M.*

CORVAIR FOR SALE:

Al Byrne of Milford, CT has a car for sale. It's a southern rust free car, new NOS door skins, recent paint & body work, all new chrome & emblems. Car is maroon with black interior. Interior is in good condition, car is 140, 4sp. Car has 4 new tires, runs & stops, only 2 primary carbs. hooked up. Also, rear main seal leaks. Good looking car needs TLC to complete. Asking \$9,800. Call Al at (203) 215-8255 or email at albyrne18@yahoo.com.

USED CORVAIR PARTS FOR SALE

Don Reinert, one of our members, would like to sell a number of items from his inventory of used parts. Here is the list:

- 1966 Front End Assembly: Complete with cross-member, upper A-arms, lower A-arms, brake reaction rods, springs, shocks, backing plates, spindles, wheel cylinders, etc. Basically, an entire front suspension assembly but without the steering linkage (also being offered for sale separately). Used except for the brake linings.
- 1966 Steering Linkage. Includes drag link, steering arms, idler arms and pitman arm.
- 1966 Rear Cross Member. The "yoke".
- 1966 Gas Tank with Filler Tube. Comes with filler tube and working sending unit.
- 1966 Right and Left Training Arms. Includes backing plates and hubs.
- 1966 110 Motor # T0922RA. Engine is completely intact and turns freely.
- 1966 140 Engine. Partially disassembled long block. Includes heads, bell housing, etc. Appears to be solid.

Prices are negotiable. With the exception of front brake linings, the parts are used. You can reach Don by phone at (610) 367-6830 or by email at dgreinert@comcast.net. Please contact Don directly.



1962 Corvair 700 Coupe

Power glide, original paint, interior redone,
 70K miles, Price: 4,800.00 or OBO
 Call Paul or Joyce Ilyes @ 717-332-3100 or
 email: Paulilyes@aol.com.

WANTED

1964 MONZA SPYDER CONVERTIBLE

MUST BE A GOOD DRIVER WITH
 VERY LITTLE WORK NEEDED.
 WOULD CONSIDER A NON-SPYDER
 CAR WITH 4-SPEED. PLEASE NO
 PROJECT VEHICLES!

CONTACT DAVID SALKIND @
 207.540.3651

FOR SALE

1965 Corvair Convertible (Monza 110)

- ◆ 57,800 miles
- ◆ Convertible top in good condition
- ◆ Rear window fogged
- ◆ Automatic on dash
- ◆ Rear quarters not so good bond job
- ◆ Interior is in good shape, although passenger seat has small rip
- ◆ Both doors good, very little rust
- ◆ Hinges are good (not rotted)
- ◆ Fuel system needs a little work
- ◆ Trunk has tiny rust holes
- ◆ Needs brake job, muffler, tires
- ◆ \$1,900 or best offer
- ◆ Free delivery
 Call John Ward
 at
 (315) 952-6349

Email: jjpwardsteel@gmail.com
 or paustinwardsteel@gmail.com

VP Ramblings

Submitted by
John Johnson



Thanks to Mother Nature and Curt, our Gettysburg Cruise was enhanced by the warm October weather. Despite a warning from the Rangers, the traffic and crowds were modest and did not interfere with us. There were 21 of us who took the tour along with 7 Corvairs. We welcomed new members, Duane and Jackie from Hellam. They are the proud owners of Duane's first Corvair. The car will need some TLC, but just think how exciting it is to have that car. I know the memories it must bring back are priceless. We also welcomed Tom Rahochik from our neighboring club, Mid-Maryland. Tom is interested in having our clubs doing some cruising together. He even mentioned the possibility of visiting Antietam. Something to think about when we put our yearly calendar together next year.

On a personal note, I would like to thank everyone who went along on the trip. Your presence and enthusiasm made the trip a pleasure for me. I never know how the tour may turn out, but thanks to you, I felt it was successful.

On a different note, I am currently watching the Barrett-Jackson auto auction on TV. On Thursday, a 1965 Corvair went across

the block. It was a red Monza Coupe, with black accents, like a Yenko, and a power glide. The car sold for \$23,000!!! I couldn't believe the sale price. The best part of the sale was the commentary by the announcers. They were extremely complimentary of our Corvairs. They even made a couple of, not so nice, remarks about Nader. They did not even "flinch" at the price. They seemed to think it was right in line with the value of the car. It just goes to show that our Corvairs continue to show the car collecting world what we have known all along and that is what a great car we own.

The year is coming to a close, but next Spring we begin a new year of cruising. Please begin thinking of places you would like to have the club visit. To me, cruising is one of the best things the club does. We not only enjoy each other's company, but also get the cars out into the public. I am still amazed at the reactions of people to the cars. Everyone smiles, everyone seems to have a story, but most importantly, we make new friends.

Long live the Corvair!!!



Jim and Linda Enfield's

orange "Pumpkin Corvan" was invited to be a part of the AACA's Trunk or Treat Halloween Display, October 16th - November 1st at the A.A.C.A. Museum, in Hershey, PA

Norman Masenheimer



will be celebrating this special Birthday on November 7th!

C.P.C.C. CLUB MEETING



York, PA

November 8, 2017

Dinner 6 pm

Meeting begins at 7 pm

Wear Test Analysis continued from Page 5

physically impossible. They later claimed that they were using some sort of wrong correction factor. But, they never made it clear why they would even use a correction factor in the first place, instead of just reporting what was actually in the oil. Now I simply don't trust them, so I don't use them anymore at all.

I now use only ALS Tribology in Sparks, Nevada. I've never had an issue with them, so I'd recommend them if you don't have another favorite lab to use. But, keep in mind, that if you change brands or types of oil, the residual old oil may well contaminate/skew the lab results of the latest oil. So, it would be best to keep using the same oil for at least two changes, before sending in used oil for lab testing, so that you get correct results.

Some of the oil companies have a product line of excellent oils for modern vehicle applications, which meet all the necessary requirements. And then they have another product line of excellent oils for the High Performance and Racing market, which dictates/desires high zinc levels.

However, the Royal Purple guys told me that they don't actually "need" extra zinc in their high performance oils, because of their proprietary "Synerlec" additive. And that they consider the extra zinc as only icing on the cake, to meet the market demand.

But, some oil companies just produce a product line for modern vehicle applications, which also works well on High Performance vehicles (as my testing has shown with Castrol oils, for example). It all comes down to the business case for producing dual product lines or not, and how it all affects their bottom line.

But, as for my motor oil wear testing, all oils get the same fair chance at performing as well as they can. And the outcome for any given oil is determined only by the base oil and its additive package "as a whole". For an oil to produce outstanding results, it has to be an excellent oil, high zinc or not. The results are the real deal, plain and simple. And on top of that, the tests are

repeated to ensure accuracy. So, at the end of the day, for better or worse, like it or not, the numbers simply are what they are.

So finally, let's take a look at the actual "wear test" data of those two Quaker State oils above. Remember, the higher the psi, the better the wear protection.

The 10W30 Defy, API SL (semi-synthetic) = 90,226 psi "load carrying capacity/film strength", at 230°F and the approximate observed temperature at which this oil started to vaporize/ smoke, which indicated the onset of thermal breakdown = 260*

The 5W30 Ultimate Durability, API SN (full synthetic) = 95,920 psi "load carrying capacity/film strength", at 230°F, which is 6.3% higher than the Defy's capability.

Now let's compare the Defy oil to 13 other high zinc oils, which all have between 1100 and 1800 ppm zinc. I've also included detergent levels for reference as well. All the oils below are full synthetic unless otherwise specified.

The below group of 14 oils are ranked according to their "load carrying capacity/film strength", or in other words, their "wear protection" performance, at 230°F. The tests were repeated multiple times for each oil, and then those results were averaged to arrive at the final psi numbers shown below. Every single oil was tested exactly the same. See chart below:

Now, in the interest of full disclosure, let's compare the new Defy motor oil to "ALL" of the other 47 oils that I have in my database, and see how it ranks against them all.

- * The higher the psi result, the higher the "Load carrying capacity/Film strength", and the better the oil is at preventing wear.
- * All oils were tested at 230* F (representative of actual running temperature).

	OIL	PSI	ZINC (PPM)	TOTAL DETERGENT (PPM)	DETERGENT PPM/ZINC PPM RATIO	PERCENTAGE BELOW #1
1	10W30 Valvoline NSL (Not Street Legal) Conventional Racing Oil <i>NOTE: Due to its very low TBN value, this oil is only suitable for short term racing use, and is not suitable for street use.</i>	103,846	1669	1618	1.0	
2	10W30 Valvoline VR1 Conventional Racing Oil (silver bottle)	103,505	1472	2787	1.9	0.30
3	10W30 Valvoline VR1 Synthetic Racing Oil, API SL (black bottle)	101,139	1180	2683	1.9	2.60
4	10W30 Amsoil Z-Rod Oil	95,360	1431	2927	2.0	8.20
5	10W30 Quaker State Defy, API SL (semi-synthetic)	90,226	1221	2830	2.3	13.10
6	10W30 Joe Gibbs HR4 Hotrod Oil	86,270	1247	3134	2.5	16.90
7	5W30 Royal Purple XPR (Extreme Performance Racing)	74,860	1421	3050	2.1	27.90
8	15W40 Farm Rated Heavy Duty Performance Diesel, CI-4, CH-4, CG-4, CF/SL, SJ (conventional)	73,176	1325	1593	1.2	29.50
9	0W30 Brad Penn, Penn Grade 1 (semi-synthetic)	71,377	1621	2939	1.8	31.30
10	10W30 Brad Penn, Penn Grade 1 (semi-synthetic) = psi	71,206	1557	3173	2	31.40
11	15W50 Mobil 1, API SN	70,235	1331	1437	1.3	32.40
12	10W30 Royal Purple HPS (High Performance Street)	66,211	1774	3676	2.1	36.20
13	10W40 Valvoline 4 Stroke Motorcycle Oil conventional, API SJ	65,553	1154	1999	1.1	36.90
14	Royal Purple 10W30 Break-In Oil conventional	62,931	1170	3184	2.7	39.40

Wear Test Analysis continued from Page 8

- * Multiple tests were performed on each oil, and those results were averaged to arrive at each oil's final value shown below.
- * Test Result differences between oils of less than 10%, are not significant, and oils within that range can be considered approximately equivalent.
- * All oil bottles were thoroughly shaken before the samples were taken. This ensured that all the additive package components were distributed uniformly throughout all the oil in the bottle, and not settled to the bottom.
- * All oils are full synthetic unless otherwise specified.

* All oils are suitable for street use unless otherwise specified.

Oil categories:

- * Over 90,000 psi = OUTSTANDING protection
- * 75,000 to 90,000 psi = GOOD protection
- * 60,000 to 75,000 psi = MODEST protection
- * Below 60,000 psi = UNDESIREABLE

NOTE: There are no BAD oils here, it's simply that some oils provide a higher level of reserve protection than others. Even the lowest ranking oil will generally work fine in most applications. But, higher ranked oils do provide a higher "margin of safety" regarding wear prevention.

OIL		PSI	ZINC (PPM)	PHOS (PPM)	MOLY (PPM)	TITANIUM (PPM)
OUTSTANDING PROTECTION						
1.	5W30 Pennzoil Ultra, APISM <i>Unable to find this oil with the latest API SN certification. The bottle says, "No leading synthetic oil provides better protection." For once, a product's hype turns out to be true.</i>	115,612	806	812	66.0	
2.	10W30 Lucas Racing Only <i>This oil is suitable for short term racing use only, and is not suitable for street use.</i>	106,505	2642	3489	1764	
3.	5W30 Mobil 1, API SN	105,875	801	842	112	
4.	0W30 Amsoil Signature Series 25,000 miles, API SN <i>10% below number 1 = 104,051 psi</i>	105,008	824	960	161	
10% BELOW NUMBER 1 = 104,051 psi						
5.	10W30 Valvoline NSL (Not Street Legal) Conventional Racing Oil <i>This oil is suitable for short term racing use only, and is not suitable for street use.</i>	103,846	1669	1518	784	
6.	5W50 Motorcraft, API SN	103,517	606	742	28	
7.	10W30 Valvoline VR1 Conventional Racing or (silver bottle)	103,505	1472	1544	3	
8.	10W30 Valvoline VR1 Synthetic Racing Oil, API SL (black bottle)	101,139	1180	1112	162	
9.	5W30 Chevron Supreme conventional, API SN	100,011	1018	728	161	
10.	5W20 Castrol Edge with Titanium API SN	99,983	1042	857	100	49
11.	20W50 Castrol GTX conventional, API SN	96,514	610	754	94	
12.	30 wt Red Line Race Oil <i>This oil is suitable for short term racing use only, and is not suitable for street use.</i>	96,470	2207	2052	1235	
13.	0W20 Mobil 1 Advanced Fuel Economy, API SN	96,364	742	677	81	
14.	5W30 Quaker State Ultimate Durability, API SN	95,920	877	921	72	
15.	5W30 Castrol Edge with Titanium, API SN	95,717	818	883	90	44
16.	10W30 Joe Gibbs XP3 NASCAR Racing Oil <i>This oil is suitable for short term racing use only, and is not suitable for street use.</i>	95,543	743	802	1125	
17.	5W20 Castrol GTX conventional, API SN <i>Oil numbers 16 and 17 were tested weeks apart, but due to the similarities in their wear scar sizes, their averages ended up the same.</i>	95,543	TBD	TBD	TBD	
18.	5W30 Castrol GTX conventional, API SN	95,392	830	791	1	
19.	10W30 Amsoil Z-Rod Oil	95,360	1431	1441	52	
20.	5W30 Valvoline SynPower, API SN	94,942	969	761	0	
21.	5W30 Valvoline Premium Conventional, API SN	94,744	TBD	TBD	TBD	
22.	5W20 Mobil 1, API SN	94,663	764	698	76	
23.	5W20 Valvoline SynPower, API SN <i>20% below number 1 = 92,490 psi</i>	94,460	1045	742	0	

Wear Test Analysis continued from Page 9

OIL		PSI	ZINC (PPM)	PHOS (PPM)	MOLY (PPM)	TITANIUM (PPM)
20% BELOW NUMBER 1 = 92,073 psi						
24.	5W30 Lucas conventional, API SN	92,073	992	760	0	
25.	5W30 O'Reilly (house brand) conventional, API SN <i>This one only costs \$3.99 per quart at the Auto Parts Store.</i>	91,433	863	816	0	
26.	5W30 Red Line, API SN	91,028	TBD	TBD	TBD	
27.	5W20 Royal Purple API SN	90,434	964	892	0	
28.	10W30 Quaker State Defy, API SL (semi-synthetic)	90,226	1221	955	99	
29.	5W20 Valvoline Premium Conventional, API SN	90,144	TBD	TBD	TBD	
GOOD PROTECTION						
30.	30 wt Castrol Heavy Duty conventional, API SM	88,089	907	829	56	
31.	10W30 Joe Gibbs HR4 Hotrod Oil	86,270	1247	1137	24	
32.	5W20 Pennzoil Ultra, API SM	86,034	TBD	TBD	TBD	
33.	5W30 Royal Purple API SN	84,009	942	817	0	
34.	20W50 Royal Purple API SN	83,487	588	697	0	
35.	20W50 Kendall GT-1 High Performance with liquid titanium (conventional) API SN	83,365	991	1253	57	84
36.	5W30 Mobil 1 Extended Performance 15,000 mile API SN	83,263	890	819	104	
37.	0W20 Castrol Edge with Titanium API SN	82,867	TBD	TBD	TBD	
30% BELOW NUMBER 1 = 80,928 psi						
38.	5W30 GM's AC Delco dexos 1 (semi-synthetic) API SN	76,501	878	758	72	
MODEST PROTECTION						
39.	5W30 Royal Purple XPR (Extreme Performance Racing) <i>This particular bottle of oil was just opened, but was out of a 3 ½ year old case.</i>	74,860	1421	1338	204	
40.	15W40 Farm Rated Heavy Duty Performance Diesel, CI-4, CH-4, CG-4, CF/SL, SJ	73,176	1325	1234	2	
41.	Brad Penn, Penn Grade 1 Nitro 70 Racing Oil (semi-synthetic)	72,003	TBD	TBD	TBD	
42.	0W30 Brad Penn, Penn Grade 1 (semi-synthetic)	71,377	1621	1437	0	
43.	Brad Penn, Penn Grade 1 (semi-synthetic)	71,206	1557	1651	3	
44.	15W50 Mobil 1, API SN	70,235	1133	1168	83	
40% BELOW NUMBER 1 = 69,367 psi						
45.	5W30 Motorcraft, API SN	68,782	796	830	75	
46.	10W30 Royal Purple HPS (High Performance Street)	66,211	1774	1347	189	
47.	10W40 Valvoline 4 Stroke Motorcycle Oil conventional, API SI	65,553	1154	1075	0	
48.	Royal Purple 10W30 Break-In Oil conventional	62,931	1170	1039	0	
50% below number 1 = 57						

SUMMARY ON THE DEFY MOTOR OIL:

So, the new Defy motor oil "wear test" ranking was 5th out of 14 high zinc oils with 1100 to 1800 ppm zinc. And it ranked 28th out of "ALL" the 48 oils I've "wear tested" so far. That makes it a mid-pack performer overall, meaning that there are many better oils available, as well as many oils available that are not as good. But, Defy did perform well enough to just make it into the OUTSTANDING PROTECTION category, which would make it a perfectly good oil for anyone interested in running an oil with "seal swell" chemicals in it. However, keep in mind that it's TBN (Total Base Number, an acid neutralizer to prevent corrosion) value of 6.5 is somewhat low, so you would never want to think about running this oil for any extended drain intervals. But, if you change it at reasonable intervals, this TBN value won't be an issue.

The claim about preventing 98% of all future wear, is just smoke and mirrors advertising, nothing more. Its mid-pack ranking does not provide much confidence in supporting that claim, and no end user would ever be able to prove or disprove the claim anyway. So, all indications are that, that claim is about as worthless as that silly "300,000 mile Guarantee" by Valvoline.

Inflated hype is nothing new with motor oil, that's for sure. And that reminds me of the claims on the bottle of the conventional Kendall 20W50 GT-1 High Performance with liquid Titanium, API SN. It says "Racing formula with extra Zinc", yet Lab Testing showed that it only had 991 ppm zinc. It also said, "Exceptional wear protection", yet in wear testing, it only ranked 35th out of the 48 oils tested, with only 83,365 psi "load carrying capacity/film strength". So, you'd be much better served by choosing your motor oil based on something real and measurable, and not by believing advertising/marketing hype, which is seldom ever actually true.

Wear Test Analysis continued from Page 10

As for the \$5.29 per quart price of Defy, it is a good value for the money. But, an even better value for the money, is the \$4.29 per quart 5W30 Chevron Supreme conventional API SN oil, which ranked 9th out of 48 oils with 100,011 psi "load carrying capacity/film strength", which is 10.8% higher than the Defy. And the Chevron has an even higher TBN value of 7.5 as well.

OVERALL SUMMARY:

Just so everyone is clear, I do not sell oil, and I do not get paid by any oil company. So, I have no stake in what oil anyone buys and runs. Everyone can buy whatever they want, for whatever reason they want. It makes no difference to me.

But, I've always had a keen interest in all aspects of our hobby, just like most everyone else. And I got tired of not really knowing "what is what" regarding motor oil. So, I decided to perform a bunch of independent "Wear Testing" and have a bunch of "Lab Testing" done. That way I could advance my own personal knowledge greatly. And I've learned a lot along the way. But, it did require that I keep an open mind, and not stay stuck with what I always "thought" was correct, based on everything I'd read in the past. Because it turns out that a lot of what I'd always thought was correct, was NOT correct at all.

What I've posted here is not intended to convince anyone of anything. I'm only sharing what I've learned from real world testing. That's it. Folks can embrace the data, or ignore it. That's up to them. So, there is no reason at all for some folks to get upset. I'm simply providing more data than you've had before, which you can take into consideration, if you like, the next time you go to buy motor oil.

**"Secret" Winter Storage Tips for the Corvair**

Submitted by
Paul Miller



Always the vehicle storage tips are repeats- clean this, clean that, make checks, etc. Yet there are a series of "secret" storage tips concealed amongst the top echelon of the car collecting hobby. You hear about them but as a whisper. Some of these are common sense some of the them bizarre - and these bizarre ones are unconventional even eccentric methods. Your choice to utilize these methods and ideas is entirely up to you- information revealed here is the result of a deep dive investigation into the world of car collecting hobby. The author makes no editorial comment on the validity of their employment.

Cosmoline™ Treatment- Storage of many metal items over the centuries has relied on good old Cosmoline. You can buy this in bulk- highly recommended. All this is well known- what is *not* well known is the application techniques. Take a paint roller with a ¾" knap and roll the whole car with it. Then open the trunk and roll

that too. Don't neglect the engine- slather it on heavily. Experts will tell you of the benefits- years of protection and cleaning it up come summer will be a joy. Many imbedded insects, perhaps, even small mammals will let you know the time, money and effort were well worth it. After all, the vermin could be eating your beloved Corvair- instead, they are stuck in the Cosmoline!

Clear Vinyl on Seats- Remembering my youth and visiting relatives' living rooms wherein all seating surfaces were completely encased in clear vinyl with doilies affixed where your head might rest. These people were on to something in terms of protection. Sure you started sweating the moment you sat down- BUT the underlying fabric was completely protected. Surprising these companies are still out there- and for a couple of hundred bucks you can enjoy this same protection.

Gasoline Tank- To fill or not to fill for best protection? Well, there have been barrels of ink spent on answering this one. Easy answer- do ½ tank- and if you get in a tough argument on a full versus an empty tank - you can flip flop (politicians do this all the time) and be *right* regardless of the prevailing opinion. Maybe you should just drive the car through winter- in which case there will always be fresh gas.

Rust Prevention Part 2- Remove the floor boards- yes, that is correct- a little cutting torch action will enable you to hang those floor boards out to dry. If you are clever enough re-installation come spring time should be but a few short minutes. On reflection- maybe removing all movable metal would be a good idea- doors, hood, engine lid- are but a couple of bolts away from protection. Let them air out with the cool dry air of winter enabling the moisture to completely dissipate. Easy peasy, janesey.

Secrets Continued on Page 12

Secrets Continued on Page 11

Electron Renewal- The physics on this is still out. But a cherished Corvair's electrical system will thank you for your efforts. Richard Feynman- the preeminent late physicist- (see Wikipedia or his book, *Surely You're Joking, Mr. Feynman!*) has some insight. Feynman developed a widely used pictorial representation scheme for the mathematical expressions governing the behavior of subatomic particles, which later became known as Feynman diagrams. No need to become a physicist to understand that even electrons and sub atomic particles wear out- so how does this help us for Corvair storage? Pretty obviously is the need to *TOTALLY* discharge you battery and all the electricity from you car. The methods are many- but my personal favorite- and I have done this accidentally- is to leave your courtesy/dome light on for a week or so. You can then "refill" the battery with your charger with new "fresh" electrons- pretty much guaranteed you'll see a difference.

Rust Prevention Part 3 - Dusting Procedures- No money or time for Cosmoline or removing metal body parts? Hey, we are Corvair people and have earned a well deserved reputation for pinching pennies. So just let the dust

build up on the external paint surfaces- it is not only easy but also cheap. Many people do this technique unintentionally. If you want to get technical about it- get your vacuum cleaner - do the carpets- open it up and get the filter out and slowing but deliberately pour that fine dust onto your prized paint job. Think this is crazy? No so. There are countless stories in magazines about barn finds where the paint appears "as new" once washed from sitting in the barn. You can check these articles out if doubts remain about the technique.

Advanced Techniques- Utilized only with professional help and training and/or money..

Oxygen Deprivation- Oxygen is a highly corrosive element which very easily combines with many other elements especially iron- which our Corvairs are made from. So get that oxygen out of there. Two "secret" techniques here. First, purchase one of those plastic car cocoons. Then buy a *lot* of dry ice or cardice. Briefly, put the car and the dry ice in the cocoon with a vent at the top of the cocoon - let the dry ice sublimate- (solid directly to gas - no messy liquid state) and suddenly no oxygen- only wonderfully stable carbon dioxide- no fuss, no muss & your Corvair is completely protected. The second technique, while

easier to do, requires more work come spring. Drive the car into a large pool of water and just let it sit there for the winter. If the water ices over- so much the better- a protective coating of ice. No free oxygen molecules in water- they are tightly bounded to the hydrogen. Come spring remove the car- dry as needed and you are good to go. A plus for both these techniques is that rubber cracking associated with ozone is largely mitigated.

Corvair Moneyball- Your rich, have little free time and couldn't be bothered. Now here is the sweet spot of protection. Just pay someone to apply any one of the above methods. Try Craigslist, Angie's List, eBay, Goodwill Auction site and put an ad in asking for help - someone will rise to the occasion especially if the dollar number you post is large enough. If you discover an especially good service don't be greedy- share it with the rest of our club.

Secret Winter Storage Tips for the Corvair is provided as a no fee service to members of the CPCC. Questions regarding the contents of this article should be sent to... Responses will be handled in the order they are received. Please send in your pictures- before & after and you'll agree the above protective measures clearly did something to your Corvair.

Treasurer's Report September 2017

by Sandy Holmes
CPCC Treasurer



	Check #	Amount	Deposits	Total
Beginning Balance				3147.20
Total Deposits				3147.20
Expenses:				
10/29/17 Planter for Curt Bonsor—Uszitics	1231	63.50		
Total Expenses				63.50
Total in Bank				3083.70
Cash on hand from 50/50 Dep 5/10			40.00	

Secretary Minutes from October 11, 2017

by Linda Enfield



Call to Order: The meeting was called to order by President, JOHN Berkheimer, at 6:45 P.M.

Secretary's Report: None given due to no meeting held in September.

Treasurer's Report: Balance of \$3,147.20 sent from Sandra Holmes, C.P.C.C. Treasurer.

Old Business:

- ◆ Plans finalized for Saturdays trip to Gettysburg. John Johnson to call Restaurant about how many to plan for (20).
- ◆ Not sure about how much money we made from Corvair Day-2017. We had a good turnout.

New Business:

- ◆ We need to furnish more hot dogs and rolls for Corvair Day lunch. Also, it was suggested that at The Bake Sale table, we offer some fruit and nuts (more healthy foods).
- ◆ Dave Steigauf called about the collection of Pebble Beach Cars, but the owner won't be home until December. We will plan for early Spring 2018. (March or April).
- ◆ Holiday Party at Perkins will be on Saturday, January 6, 2018, at 1:30 P.M.
- ◆ The Club members took-up a collection to be given to Earl Holmes instead of flowers. Steve Hooper will deliver it on Friday.

Announcements:

- ◆ No 50/50 drawing was held.
- ◆ The next meeting will be held on Wednesday, November 8, at Hoss's . eat: 6 p.m. meeting at 7:00 p.m.

Adjournment:

- ◆ John Johnson made a motion to adjourn the meeting. Yvonne Brown seconded it. Meeting adjourned at 7:30 P.M.

Attendees: Fourteen people, and NO Corvairs attended the meeting. Attendees were:

Steve Hooper	Bruce Culp	Lou Trimper	Rich Heisler
Yvonne and Paul Brown	John and Sandy Johnson	Dave Steigauf	Ron and Betty Hash
Jim and Linda Enfield	<i>and last, BUT certainly Not Least, John Berkheimer</i>		

Breakdown of Corvair Day 2017

Submitted by Sandy Holmes

		<u>Made</u>	<u>Cost</u>	
Registered & Extra Tickets to Museum	42	676.50	435.00	
Scavanger Hunt	20	80.00		
	1 st Place: Marlene Passini 435 points			
	2 nd Place: Darlene Kady 380 Points			
	3 rd Place: John & Sandy Johnson 360 Points			
Banquet	25	625.00	625.00	
Bake Sale		113.50		
Raffle for 100.00 Visa Card		185.00	103.95	
	Winner: Dave Adams			
50/50 Drawing		140.00		
	Winner: Ken Lorsotech, Bel Air, MD		70.00	
New Members (2)		32.00		
Renewal of Members		120.00		
New Corsa Member		45.00	45.00	
Sell of Club Merchandise		34.00		
Cost of Trophies			353.00	
Cost of Refreshment Supplies (Coffee, cups, creamers, sugars, hot dogs , etc.)			43.59	
		2051.00	1675.54	375.46
				Profit



Corvair Day 2017



Corvair Day 2017 Winners!



STEVE SABAKA
65 Corvair Convertible



BOB WEIDEMAN
64 Monza 4-door



JOHN BERKHEIMER
Dick Peris Memorial Award



CLAIR MORGAN
63 Greenbrier



LARRY YODER
65 500 CP



DAVE ADAMS
Gift Card



ALLISON PASSINI
1967 500 4-Door Coupe



DAVE ADAMS
64 Monza Convertible



JOHN & SANDY JOHNSON
3RD Place Scavenger Hunt



MARLENE PASSINI
66 Monza Convertible



STEVE PETRELLI
68 Fitch Sprint



DARLENE KADY
2ND Place Scavenger Hunt



JIM & MAROLYN SIMPSON
66 Corsa Coupe Turbo



DARLENE KADY
65 Monza Coupe



MARLENE PASSINI
1ST Place Scavenger Hunt



JIM BATT
65 Corsa Convertible Turbo



JOE BRADLEY
64 Monza Convertible



KEN LORENTZON
50/50 Winner

Central Pennsylvania Corvair Club

The Central Pennsylvania Corvair Club (C.P.C.C.) is a non-profit organization dedicated to the preservation of the Corvair and Corvair powered vehicles. We provide knowledge about the Corvair to our members and other car enthusiasts, as well as hold monthly meetings, events, and social gatherings for the enjoyment of our members.

C.P.C.C. is Chapter #170 of the Corvair Society of America (CORSA). Dues for C.P.C.C. are \$16.00 per year or two years for \$30.00, which must be sent in the form of a check or money order payable to "C.P.C.C." and mailed to C.P.C.C. Treasurer, Sandra Holmes, 1511 Hicks Drive, Dauphin, PA 17018. It is suggested that C.P.C.C. members also become members of CORSA, the national organization. CORSA dues are \$45.00 per year. Dues may be sent to CORSA, P.O. Box 607, Lemont, IL 60439-0607 or online at <http://members.corvair.org>.

Newsletter submissions should be sent to the Newsletter Editor, Carol Trimper at lcl@pa.net. Mailing address is 30 Wheaton Drive, Littlestown, PA 17340.

All other club inquiries should be directed to the C.P.C.C. Secretary, Earl Holmes, 1511 Hicks Drive, Dauphin, PA 17018.



Visit us on our website: centralpacorvairclub.org



The Four Wheel Independent
30 Wheaton Drive
Littlestown, PA 17340