

VOLUME 30, NO. 10

APR 2019

# V-DUBBER

NEWSLETTER OF THE CENTRAL FLORIDA VW CLUB

→ APR MEETING @ Mellow Mushroom ←

## GOLF: MIDDLE AGE?



It was 45 years ago... that production of the Type 17 Golf began. When it debuted in Europe in 1974, the Golf made just 70 hp. Sold as Rabbit in the US some nine months later, it was followed in 1977 by its 48 hp diesel version. In its various updates (currently Mk 6 but already planning a Mk 7) Golf has since grown to more than 300 hp. In the ensuing years, an average of 1 Golf has been sold every 41 seconds—or 780,000 per year.

CFVWC, P O Box 560235, Orlando, FL 32856-0235 web site [www.centralfloridavwclub.org](http://www.centralfloridavwclub.org)

President: Rollie Walker (407) 721-2455; Secretary Debbie Van Treuren (386) 345 4208

CFVWC and VWCA are non-profit organizations and are not affiliated with or sponsored by VWoA or dealer

Local membership includes National Club and newsletters: \$30/ family per year

Meetings normally held at the Mellow Mushroom, Sanford, second SATURDAY of month, 2PM.

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### Volkswagen's 1.5L "Miller Cycle" Engine Possibly To Come To the US

VW's EA211 1.5L TSI Evo engine might be coming here soon. VW is trying different ways to work to make their engines more efficient without sacrificing power. The Miller Cycle was patented by Ralph Miller way back in 1957, Originally with a supercharger. Mazda used the Miller Cycle on the 2.3L V6 in its Millennia during the late '90s.

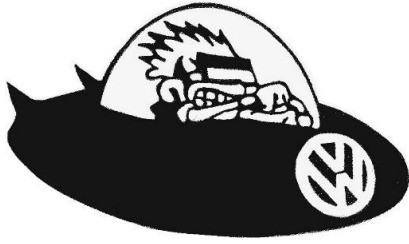
The more time the engine spends with the pistons being forced down in the power stroke, the better. Because the whole time the air and fuel are burning and expanding, they're making power. But the compression and expansion ratios are effectively the same; the piston has to go up and down the same amount.

What does the Miller cycle do? When the piston hits the bottom of the intake stroke in a conventional engine, the intake valves are supposed to shut. Otherwise, they're pushing out that gasoline/air mix. In the Miller version, the intake valve stays open for a little bit longer – 20 to 30% - of the next, or compression, stroke.

Leaving the intake valves open means that for the initial 20-30 percent of the compression stroke, nothing is actually being compressed; so there is no energy being used to compress anything. The design allows for the expansion ratio of the engine to be much higher than the compression ratio.

Rather than a supercharger, VW uses a turbo to compress the air. Then the air is sent through an intercooler. That lowers the charge temperature. Because the effective compression ratio inside the engine is lower, that charge stays cooler than it would in a normal Otto-cycle engine. That lets the engine computer advance ignition timing to much earlier in the cycle than it could with a normal engine. Advancing timing increases efficiency even further as it gives the charge even longer to expand on the power stroke.

In a conventional gas engine, much of the expansion of the fuel is wasted when the exhaust valves open. The Miller cycle, making the expansion cycle longer than the compression cycle reduces that waste. That's how VW can get 150 hp and 184 lb-ft out of a 1.5L four, and is aiming at 180 hp. More impressively, that's how it can get 48 mpg combined in a Golf with that kind of power.



# Secretary's Report

The MAR 2019 Meeting was held at back at the Mellow Mushroom on Rinehart Road in Sanford on the 9<sup>th</sup> . Present were: Will & Joan Euverard, and Debbie & Richard Van Treuren, Discussions on ongoing projects carried the day.

Hope to see you on the 13<sup>th</sup> of April, back at the Mellow Mushroom on Rinehart Road in Sanford.

Minutes by Debbie Van Treuren, Secretary

New member Vinny Lentini attended the Lakeland Show and had a great time with his yellow 1970 Bug. (His photo below). Vinny and Rollie parked their similar Bugs together at the last meeting... can you spot the differences in the side by side photo?





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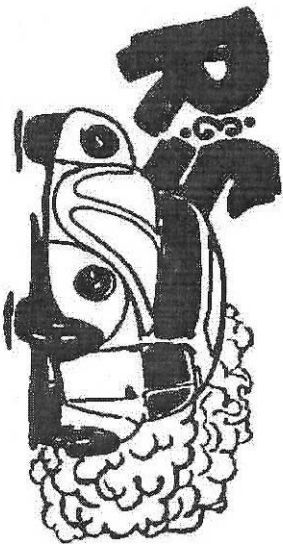
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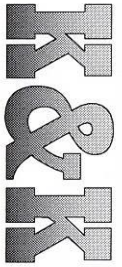
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**The APR Meeting is held at  
Mellow Mushroom  
1831 Rinehart Rd Sanford  
Saturday 13 APR 19 at 2:00 PM**

**Congratulations! Central Florida VW Club!**  
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