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# Value Clatter

*Early Ford V-8 Club of America*



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*Ken Burns - Editor*

# COLUMBIA 2 SPEED

Shifting Into Overdrive – January Garage Tour

By Hank Dubois – photos by Jim McDaniel, Cliff Green and Editor



Mel Herwald begins assembling his Columbia as we gather around and watch.

The NVRG started off 2015 by shifting (I couldn't resist) into something a bit different for its January garage tour. Instead of simply visiting and viewing a fellow car buff's garage and cars, club members participated in a learning and hands-on session on the legendary Columbia Two-Speed Axle. Twenty-seven members and friends gathered in Ken Burns' heated garage at 10:00 AM on a cold Saturday, January 10, for Cliff Green's PowerPoint presentation on the Columbia Axle and to see Mel Herwald assemble the Columbia that he will be installing in his '46 Ford Convertible. Some of those in attendance either already have a Columbia in their V-8 or have a Columbia that they plan to install, while others simply wanted to learn more about this extraordinary accessory for the Ford V8, Mercury, and Lincoln Zephyr.

After a half-hour or so of greeting, visiting, and indulging in the coffee, tea and donuts that Ken had assembled for the event, attendees gathered at one end of Ken's garage for Cliff's power point presentation.

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## Up Front with the President



### February 2015

I'll start this month's message with an announcement. If you ask any of the Directors on the NVRG Board, they will, without a doubt, tell you being on the Board is a great way to get to know the workings of your Club. You will find the camaraderie most enjoyable, with the opportunity to have input in the workings of the Club. With that said, I'd like us all to welcome **Gay Harrington** as the newest member on your Board of Directors. She will be **Dave Gunnarson's** understudy for membership and will become next year's Membership Chair. Welcome aboard Gay!

Well, we certainly dodged a bullet recently with the blizzard that swept into the New York and New England areas. Luckily we only received several inches of snow in the Northern Virginia area. Just a few more degrees further south for that frontal storm and we could have been in real trouble. My V-8 has stayed safely tucked into its "semi-warm" garage, and we're hoping for some early warm spells to get the cars back out.

We had our first Board of Director's meeting of the new year a few days ago, and it looks like we're in for another active and fun year for the Club. Your Directors are exercising their creative skills and technical knowhow to create another year of interesting topics and programs. Some subjects, that at first blush you'd think would not have that much to hold your attention, wind up being most interesting. There is usually a lot of developmental thought, research, and (old) technology involved in what we consider ordinary items or functions. Look forward to learning more about how things work, like wipers, horns, windshield details, tune-ups, electrical systems (especially grounding issues), restoration basics, and what to look for (and be careful of) when buying an old V-8.

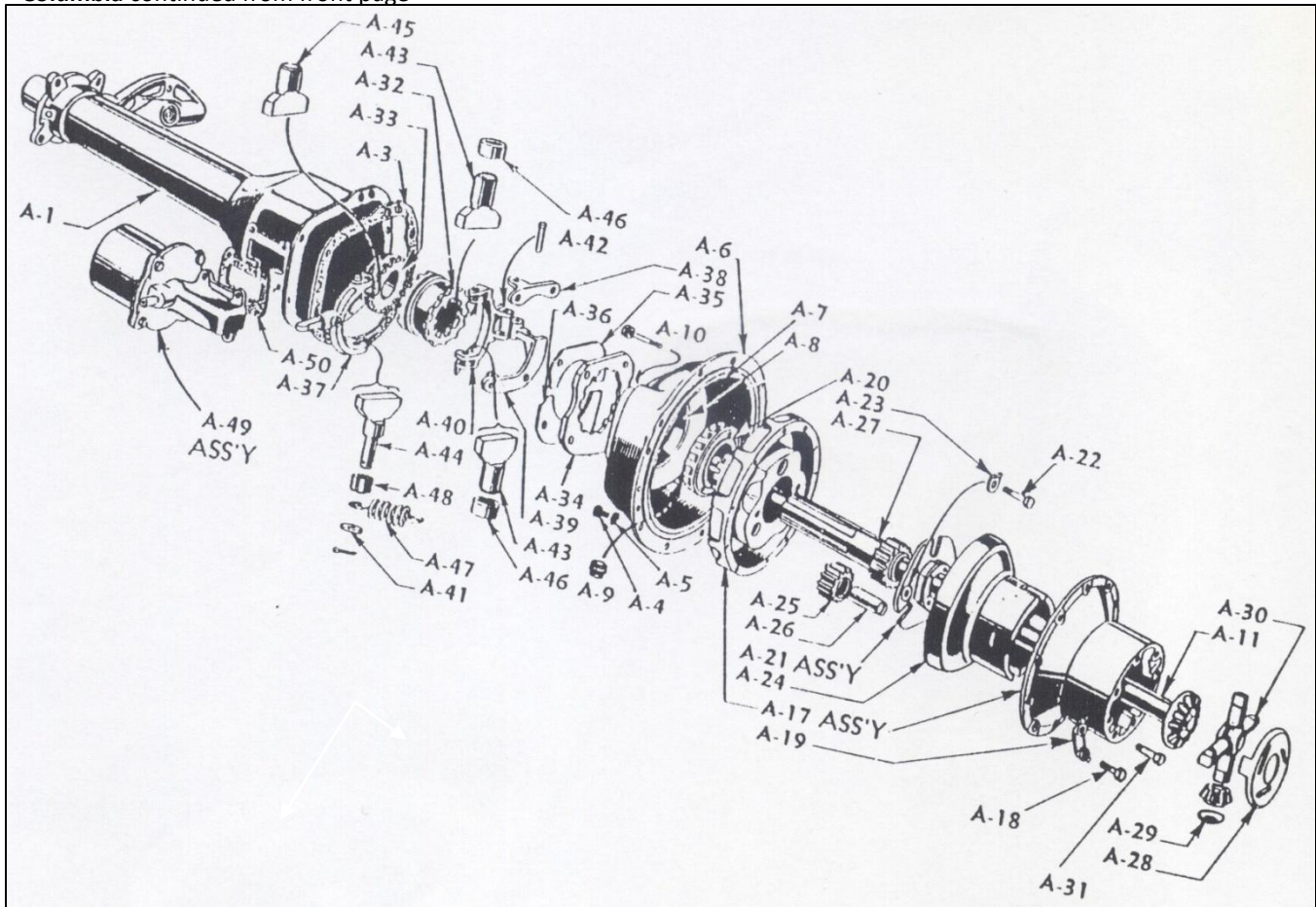
We'll also have a lot of opportunities to get the cars out on the road with monthly tours and events. We'll have some of our standards, like **Clem's** Old Car and Train Day this month, followed by a variety of activities like our annual Poker Run; the Fairfax Car Show headed up by **Dave Westrate** and co-sponsored by our NVRG Club and the City of Fairfax; our summer picnic; the Sully Plantation Car Show; "What Else But Hershey;" the Eastern National Meet; the Drive-In Movie and several garage tours that are still in the planning and coordination stages. There's a lot to keep your interest.

I'd like to now take this space and opportunity to give a special thanks to **Dick and Myrtie Lebkicker's son, Jim**, who contacted me recently with an offer of Dick's extensive collection of old car literature. For those who are new to the Club and didn't know him, Dick Lebkicker was a very active and extremely knowledgeable Club member who contributed much to the Club and was always willing to help both old and new members with any problem they were having. If you had a problem, "call Dick." I'm proud to have known Dick and Myrtie, and the older Club members all remember them both with affection. We on the BOD have not yet decided how to "distribute" Dick's collection, but his son wanted the items to be shared with those who have a love for the hobby. There is a lot more than just V-8 literature, as Dick enjoyed several varieties and vintages of antiques, and we will most likely share information with other Clubs, like the LaSalle, Model-A, Model-T, and other clubs. There's even some Chevy and MOPAR stuff in there. To honor Dick and Myrtie, your NVRG has purchased an engraved brick that will be installed in the walk at the Early Ford Foundation & Museum, with the following inscription, "**DICK and MYRTIE LEBKICKER, N. Virginia RG#96.**"

*Jim*

Jim "High Sheriff" McDaniel





Columbia 2 Speed Parts Breakdown – you'll want to refer to it as you read Hank's write-up.

Cliff started by pointing out that a rebuilt/restored Columbia with controls currently brings a price of up to \$5,000 and, because the Columbia is such a desirable accessory, that amount can be recovered when the car is sold.

Cliff then provided a brief history of the Columbia Axle Company noting that their first "Dual Ratio" axle was for the 1932 Auburn and was used on Auburns until 1936. The first "Dual Ratio" axle for the Ford V8 was introduced in mid-year 1934 as an accessory for 1934 but could also be installed on 1933 Fords. The axle was supplied as a kit to be installed by Ford dealers or by independent authorized garages. Only a few of these were sold and they are considered very rare today. The axle was redesigned and improved for the 1935 Ford and, by mid-year, was called the Columbia "Two-Speed Axle" even though the differential carrier casting (A-6) was still marked "Dual Ratio Axle". The axle was also an option for the new 1936 Lincoln Zephyr and later, the new 1939 Mercury. Ford, Mercury and Lincoln Zephyr cars could be ordered with a Columbia but it was installed by an independent entity before

delivery to the dealer. Alternatively, the dealer could obtain and install the Columbia or have it installed by a local authorized garage.



Six new Fords and Mercurys await installation of their Columbia 2 Speeds at Woodward Hancock Service in Detroit sometime in 1941. All parts for installation are in the cardboard boxes in the foreground.

Starting in April 1937, however, a Columbia could be factory installed on Lincoln Zephyrs only. The axle was further improved and strengthened in late 1937/early 1938 and remained essentially unchanged mechanically until production ended in 1948. The axle housing (A-1) was changed, as necessary, to conform to design changes in the factory housing and the controls underwent a number of changes to improve and simplify their

Columbia continued on next page

**Columbia** continued from previous page operation. Starting in 1937, the marking on the differential carrier casting was changed to "Two-Speed Axle" or "Overdrive Axle". '46-'48 castings were marked "Overdrive Axle".

In 1940, Mr. E.L. Cord sold the Columbia Axle Co. to a Cincinnati investment group represented by Messrs. W.E. Schott (who already controlled a sizeable number of auto-related businesses) and Lewis Goldsmith. These two men became the new President and Vice-President, respectively, of the Company. Production and distribution of the two speed axle apparently continued as before, however, it was not available from 1942-1945 due to WW II. Production was resumed in late 1946 with Ford and Mercury dealers obtaining the axles from Truckstell Company distributors located at key points from coast to coast. The Columbia Overdrive was now called "Skyway Drive" and had a new electric control, i.e. the vacuum control was activated by a solenoid instead of manually.

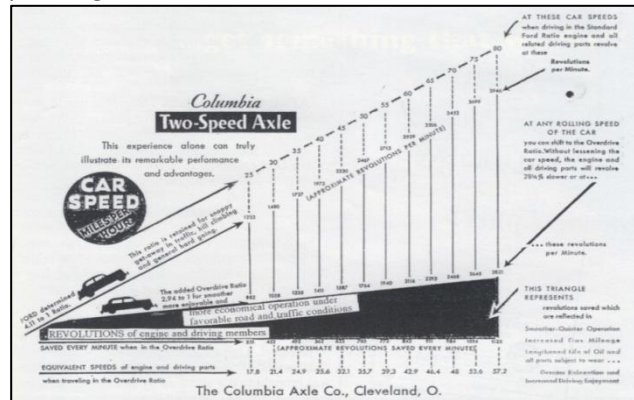


This post-war ad extols the virtues of the "NEW Finger-Flick Control."

The 1948 introduction of the Borg-Warner overdrive in the new 1949 Ford and Mercury made the Columbia obsolete and spelled the doom of the Columbia Axle Co. However, parts and complete axles for pre-1949 cars remained available for quite a while. In late 1948, the Kaplan Auto Parts Distribution Co. of Cleveland purchased the Columbia inventory and took over the distribution of axles and spare parts. Kaplan did an active business throughout the '50's and into the mid-'60's when the supply of key components (new and used) had dwindled and the supply of whole axles was depleted. In 1968, Kaplan scrapped the last of its inventory (ouch!) and ceased sales.

Cliff's presentation then focused on the operation of a Columbia equipped car and its benefits to both car and driver. He presented a table which showed a 28.5% reduction in engine RPM at all speeds, regardless of rear axle ratio, when the Columbia is engaged. For example, at 50 MPH, engine RPM of a car with a 4.11 rear axle ratio drops from 2467 to 1764 when the Columbia is engaged. Since the overdrive mechanism is located in the rear

axle, a similar reduction in RPM occurs in the transmission and driveshaft and this further reduces the noise and vibration felt by the driver and passengers.



A 1935 Columbia advertisement showing RPM reduction.

Cliff then described how the Columbia is operated by the driver. The first thing a driver has to remember is that the car must be moving when the Columbia is shifted into overdrive and also when it is shifted out of overdrive. To shift into overdrive, the dash control (lever on '35/'36, knob on '37-'41, and spring loaded electric switch on '46-'48) is activated (turn lever to "H", pull knob, or hold down switch). The driver then takes his foot off the accelerator pedal (to create maximum vacuum) and fully depresses the clutch which completes the shift. On '46-'48, the driver also then releases the spring loaded dash switch. To shift out of overdrive, the driver returns the dash control to the standard position (on '46-'48 the control switch automatically returns to standard position), takes his foot off the accelerator pedal, and fully depresses the clutch which completes the shift.

Next, Cliff briefly described the three versions of controls for the Columbia, i.e., for '33-'36 cars, '37-'41 cars, and '46-'48 cars. The '33-'36 version consists of two vacuum valves, one located on the firewall which provides vacuum to the two lines that go to the axle, and one located near the clutch pedal. This latter valve is plumbed in series between the source of vacuum (carburetor plate) and the valve on the firewall and only allows vacuum to the firewall valve when the clutch is fully depressed thereby taking power off the drive train when shifting into or out of overdrive. A control rod/ lever located near the center of the dash goes to the firewall valve to control vacuum between the two valve ports for shifting into or out of overdrive. This rod also controls a speedometer shifter rod which

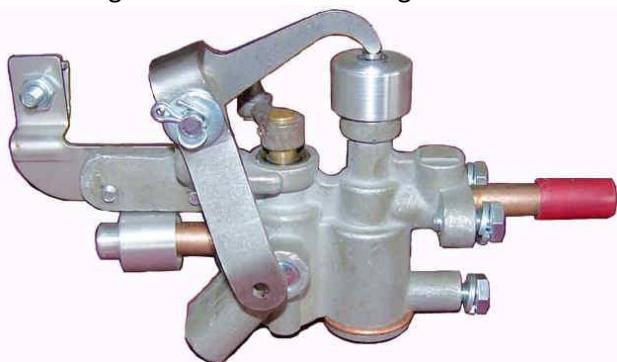
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goes to a Stewart Warner speedometer changer mounted on the back of the speedometer. This changer provides for accurate speedometer readings when the Columbia is engaged.

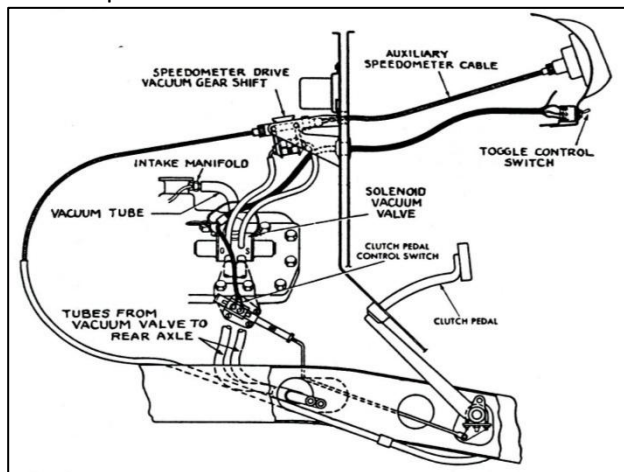
The '37-'41 version consists of a single vacuum control located on the left frame member near the steering box ('37/'38) or on top of the steering box ('39-'41). It is plumbed in series between the carburetor plate and the axle and combines the functions of the two separate valves on the earlier '33-'36 version. A rod goes from the clutch pedal to the control and, when the clutch pedal is depressed fully, this rod opens a valve to provide vacuum to two valve ports which, in turn, provide vacuum to the lines going to the axle. A shift knob on the dash pulls/pushes a double "Bowden" cable with one cable controlling which of the two ports receives vacuum while the other cable is attached to a speedometer changer located on the back of the speedometer for '37-'39 and on the firewall inside the engine compartment for '40/'41. Ken passed around his '37-'41 B-3 valve assembly and speedometer changer while Cliff was talking.



Control Valve reproduced by John Connelly of Columbia Two Speed.

The '46-'48 version is the most sophisticated set of controls that Columbia ever produced. Like the '37-'41 version there is a single vacuum control unit but virtually everything else is different. The unit is mounted on the left engine cylinder head and is plumbed in series between the carburetor plate and axle. However, it is activated by an electric solenoid (instead of manually) which controls vacuum to the two vacuum lines that go to the axle. Power to each side of the solenoid (overdrive and standard drive) is controlled by a spring loaded dash switch which remains in standard drive position unless held down by the driver in overdrive position. A rod from the clutch pedal goes to a switch in the control unit which, when the clutch is fully depressed, provides the ground to complete the electrical circuit that activates either the overdrive or standard drive side

of the solenoid. The speedometer changer is controlled by vacuum supplied through lines plumbed into the overdrive and standard drive vacuum ports on the control unit.



1946-8 electro-vacuum control system.

Cliff finished his presentation by talking about the primary components of the axle itself, how the axle operates in standard drive and overdrive modes, and the rebuilding and "bulletproofing" of Columbia units. He started by showing us the standard exploded drawing of a Columbia axle with all the parts/assemblies labeled with numbers ranging from A-1 to A-64. He pointed out the three primary operating components of the axle which are: 1) the differential outer case assembly (A-17) which encloses the operating "guts" of the axle, i.e., the sun gear (A-27), three planetary gears (A-25) which turn around the sun gear, large internal gear (A-24) which goes around and is turned by the planetary gears, pinion cross (A-30), and the four pinion (spider) gears from the stock Ford axle; 2) the shifter assembly comprised of parts (A-33) through (A-48); and 3) the synchro clutch (A-32). These three components are contained within the housing assembly (A-1) and differential carrier (A-6) which together replace the stock right hand axle housing. A vacuum cylinder and base assembly (A-49), which receives vacuum from the vacuum control and activates the shifter, completes the Columbia axle and is bolted to the housing assembly (A-1).

Cliff then described what happens inside of the differential outer case assembly during operation of the axle. When the Columbia is in standard drive, the sun gear is locked to the differential outer case assembly (which is bolted to the ring gear) so it rotates at the same speed as the assembly. In this mode, the planetary gears do not turn so the large

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inner gear also rotates at the same speed as the assembly. Since the large inner gear carries the four pinion gears, the net result is that the Columbia axle functions the same in standard drive mode as a stock rear axle.

When the Columbia is shifted into overdrive, the sun gear is locked to the differential carrier casting so it cannot rotate. In this mode, the planetary gears rotate around the sun gear and, in turn, rotate the inner gear 28.5% faster than the differential outer case assembly which encloses it. Since the inner gear carries the pinion gears, the net result is a 28.5% reduction in RPM from the differential outer case assembly forward to the engine.

Shifting from standard drive to overdrive and vice versa causes sudden and substantial shocks to the gears, bearings, and housings of the Columbia axle. To absorb these shocks and to lock the sun gear in either standard drive or overdrive mode, the axle has a brake-clutch mechanism called the synchro clutch. The synchro clutch is shifted to standard drive or overdrive position by the shifter assembly and has a cylindrical steel outer shell and an aluminum inner drum that is splined to slide over the sun gear extension. The drum has 10 small friction "brakes" in partitions around its perimeter that bear against the interior wall of the outer shell. Each "brake" is comprised of a leaf spring, steel "shoe" and brake lining attached to the shoe. The linings were originally made of sheet cork and were glued to the shoes. Over time, the glue can migrate through the cork and cause the shoes to adhere to the outer shell. When this happens, the synchro clutch can "freeze" and catastrophic damage can occur to the axle's internals when it is shifted.



You can see the remains of the stuck cork pads.

I passed around a synchro clutch outer shell and inner drum as well as a brake shoe, spring and lining for all to examine while Cliff was talking.

Rebuilding and bulletproofing a Columbia that is in good undamaged condition involves (in addition to cleaning, repainting, etc.): 1) new large bearing/race on the differential outer case assembly/differential carrier, 2) new screw locks for the differential outer case and the differential support hub (A-21), 3) new thrust washers for the four pinion (spider) gears and the axle side gear, 4) installing a "band" to strengthen the large inner gear on the end where the pinion cross is installed,



This A-24 differential case has been damaged beyond repair.



This A-24 differential case has been banded and the A-30 differential spider shortened.

5) additional welding to strengthen the three legs of the "tripod" that support the planetary gear shafts in the "lid" of the differential outer case, 6)

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**Columbia** continued from previous page rebuilding the synchro clutch with new brake springs and linings, 7) new oil seal in the axle housing and new housing/differential carrier gasket, and 8) rebuilding the vacuum can and base assembly with new leathers, felt, vacuum seal and gaskets. The parts for rebuilding the axle as well as repair and bulletproofing services are available from Columbia Two Speed Parts, Inc., Temecula, CA. John Connelly, the owner, is a retired machinist who is very knowledgeable about the Columbia and is actually making some of the internal parts which are most subject to damage. Ken and Mel have both done business with Mr. Connelly and they highly recommend him. His website is <http://www.columbiatwospeedparts.com>.

After Cliff's presentation, attendees gathered at the other end of Ken's garage to examine the components of Mel's Columbia and watch him assemble them into a complete package. The housing of Mel's axle is particularly interesting since it's an early '46 Columbia, i.e. among the first ones produced when Columbia resumed production in late '46. Most '46-'48 Columbia housings have a pronounced "step" about half way between the big end and the hub bearing sleeve and an axle breather vent but Mel's has a nearly straight taper in this area and no vent. Mel had rebuilt the axle's components, with bulletproofing assistance from John Connelly, and had repainted the external surfaces of the housing, differential carrier, and vacuum can so that everything looked as good as new!



Mel takes a question before the assembly process begins.

Mel explained what had been done to his axle and basically went over the rebuilding and bulletproofing items covered by Cliff earlier with a couple of interesting things noted. First, Mel's axle must have been in pretty good shape because the thrust washers for the spider gears and axle side gear were still usable. He also explained how difficult it can be

to install the ten relined friction brakes into the synchro clutch; he finally resorted to driving them in carefully with a soft drift to avoid damaging the inner aluminum drum. He also confessed that he had installed the seal in the vacuum can base backwards because he thought it was an oil seal instead of a vacuum seal! I think we can all relate to this since I'm sure we've done very similar things!

Mel then told us that he had originally planned to have us help him assemble his axle correctly but, after studying and restudying the exploded drawing, he had figured it out and come to the conclusion that there really is only one way that it can be assembled. That said, he then went about putting his axle together and, in the process, asked for "volunteers" to try and show how certain components should be assembled.



"Volunteer" John Ryan trying his hand at assembly.

Mel had the major component assemblies (differential outer case, shifter, synchro clutch and vacuum can/base) already together and they basically just needed to be assembled to the housing and differential carrier.

Mel was just about finished when the smell of fresh pizza permeated the garage and everyone's attention turned to lunch! Ken had arranged for the pizza delivery and for cold beverages so that we would not have to shorten or interrupt the session and leave for lunch. It worked out very well with attendees continuing to talk about Columbias and other stuff (mostly V8) during and after lunch. All in all, this turned out to be a great garage event in terms of the content and format of the material presented, and in terms of the large number of members and friends who attended. Hats off to Cliff and Mel for their efforts to enlighten us in all things Columbia, and to Ken for the use of his nice heated

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**Columbia** continued from previous page garage and for getting everything set up for the event including the great morning refreshments and the tasty pizza lunch. I heard a number of our members remark that they really enjoyed the day and that we should do more of these technical, hands-on garage events. I couldn't agree more!

Note: If you want to learn more, check out or review the Mar/Apr, May/June, July/Aug, and Sept/Oct 1994 issues of the **V8 Times** for a very good series on the Columbia axle from its history to current repair and restoration techniques.

### Why a Columbia?

By Mel Herwald

The first thing should be to state why I wanted to put a Columbia in my '46 Ford convertible. The answer is quite simple. I drive my cars. I have a Model A with a Borg-Warner overdrive and it makes a world of difference when cruising at 40-45 and above. The engine is much quieter and not working nearly as hard. It's that simple.

My '41 Mercury Coupe (which I'm currently restoring) also has a Columbia which was in it when I bought it in 1969 when I lived in California. Unfortunately my '46 will be on the road first.

I bought the Columbia overdrive for my '46 last summer at the Eastern National Meet in Gettysburg. I bought all the parts and had the "bulletproofing" done by John Connelly at Columbia Two Speed Parts in Temecula, CA.

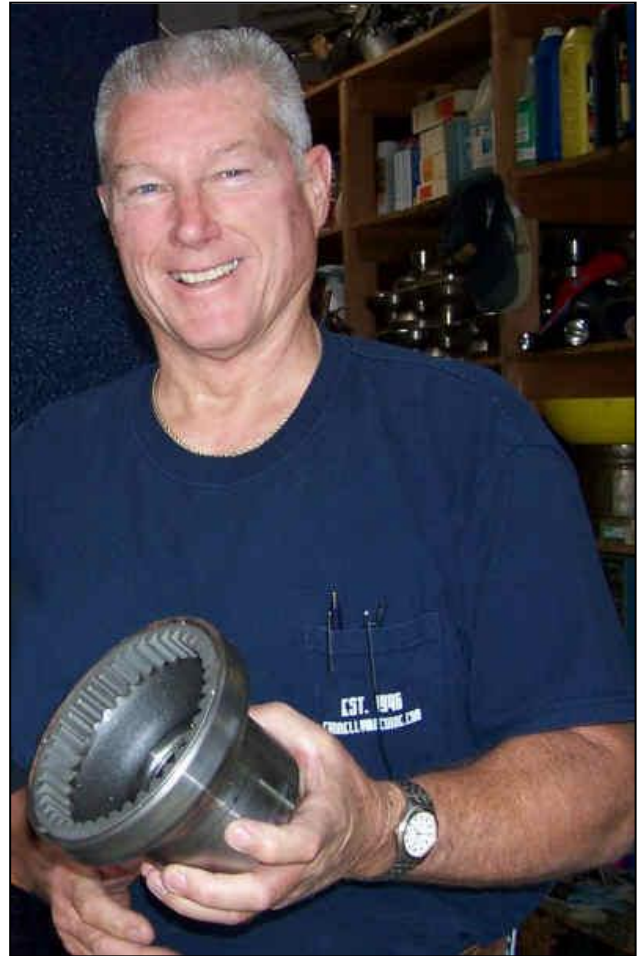


The arrow shows where the A-17 "basket" will be welded to strengthen and reinforce the unit.

It basically requires some machining and some welding. He did a first class job on everything and I

would highly recommend him. Shipping was not a problem as none of the parts shipped either way were heavy.

The assembly actually went quite well and I enjoyed discussing all aspects of the assembly at our tech session at Ken's house. Judging from the turnout there must be quite a bit of interest within the club. When I redo the Columbia on my Mercury I intend to do it the same way. If anyone decides to rebuild one I would be glad to help in any way I can.



John Connelly holding a new A-24 Differential Case and 39 tooth internal gear assembly he reproduces out of billet alloy steel. No need to band this high strength unit.

### A Lincoln with Two Overdrives???

By Don Pauly

Yes, it is true. My 1941 Lincoln Continental Coupe has two overdrives, a Borg Warner-Overdrive on the transmission, and a Two Speed Columbia Rear Axle.

So how did this unusual situation happen? As we know from Cliff Green's briefing, the Columbia began with Auburn in 1932. It became available as an option with Lincoln on the Lincoln Zephyr line in

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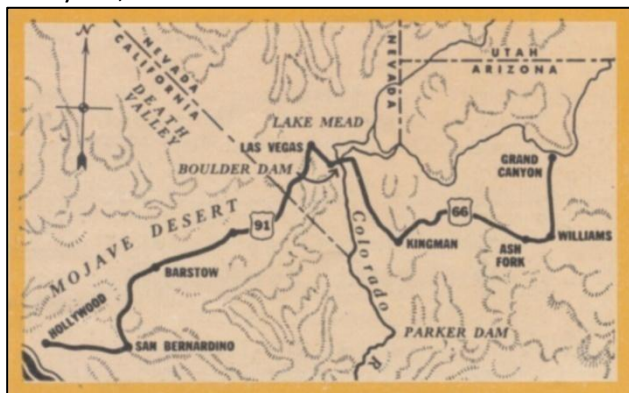


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1936. The Lincoln Continental was first produced in 1940, and it used the V-12 engine and drive train from the Zephyr line which included that Columbia option. Then in the 1941 models, the Borg-Warner Overdrive was introduced. But Lincoln, in the Ford tradition, was prone to continue to use items from the previous year to exhaust their leftover inventory, so that made the Columbia available as well. Therefore, a buyer could actually choose either option in 1941 models, even though the new overdrive was intended as a replacement for the older Columbia.

Why then would anyone choose both? The answer lies in the Gilmore Gasoline Economy Run of 1941.

Lincoln chose to enter two cars in the run - and both were equipped with the two overdrives. Amazingly the Lincolns came in first and second in their class, and that created great interest in using two overdrives. In 1941 the economy run results were calculated in ton miles per gallon, which gave the heavy Lincolns a fair chance to win against the lighter competition. The first place Lincoln Custom averaged 57.827 ton miles per gallon while getting 21.03 miles per gal, a great performance for a heavy car, thanks to the two overdrives.

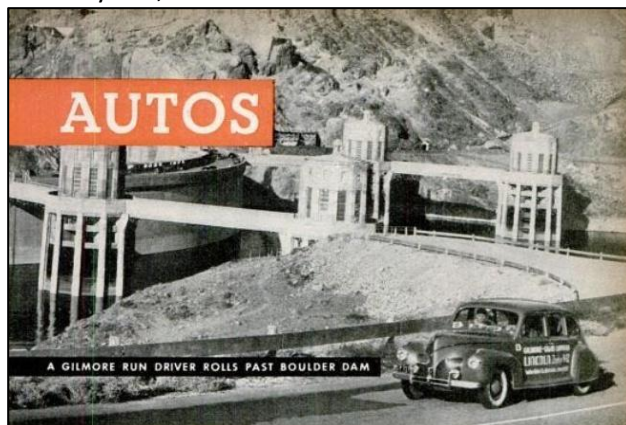


The 1941 Gilmore Economy Run Route from Los Angeles to the Grant Canyon.

My Lincoln is known as the J C Penney car in the long held belief that he was the original owner. That cannot now be proven because of a fire which destroyed Lincoln sales documents of that era. We do know some things from its restoration in 1990 when owned by Harold Via. The restoration cost about \$200,000. At that time a new and correct 1941 V-12 engine was installed, fresh from its shipping crate where it had been stored in a Lincoln warehouse. That engine now has 22,580 miles on it. Both of the overdrives continue to work well. The car had changed owners several times before my purchase of it in 2004. An owner in the 1995 era

drove it coast to coast in a caravan of classic cars, and reported in the official Lincoln Club magazine that it drove very well at 80 miles per hour, never overheated, and passed most of the other cars (Packards and Cadillacs) in the caravan when climbing hills. He attributed that to the two overdrives, and the ability to use the Columbia in any gear.

Each overdrive unit is actuated separately by knobs located on the bottom edge of the dash to the left of the steering column. When they are enabled and you have reached the speed you desire, lifting the accelerator will electrically shift the Borg-Warner into overdrive. Depressing the clutch uses engine vacuum to shift the Columbia. Cliff reports that the Columbia reduces engine RPM by 28%. I do not know the additional reduction from use of both - but it is substantial. When Vern Parker featured my car in his newspaper column, I received queries from all over the country about the accuracy of it actually having two overdrives. Many people are skeptical that the V-12 of 120 HP can handle them both, but it certainly can, and it does.



This is the 1941 Lincoln Zephyr that that ran in the Gilmore Economy Run, competing in Class I for cars costing between \$1,390 and \$1,699.

### More About Economy and Endurance Runs By Editor

The Gilmore Economy Run (later called the Mobilgas Economy Run after Mobil bought Gilmore Petroleum) was a pretty big deal from 1936 until the outbreak of WWII. Economy runs didn't start when Gilmore sanctioned its first economy run in 1936, or even in the mid-1920s, but stretch all the way back to 1906 when the Automobile Club of America sponsored a contest to see how far a car could go on two gallons of gas. Over the years many car manufacturers, oil companies and organizations spon-

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sored numerous economy/endurance runs. In the V-8 era, Ford jumped right in to the thick of things with a 33,000 mile endurance run in the summer of 1932 to strengthen V-8 sales while Ford engineers were hard at work solving oil consumption and other problems that nearly derailed the introduction of the new V-8 engine. The event was called the "Ford V-8 Stamina, Endurance and Economy" run. Eddie Pullen and three other drivers drove 33,301 miles in 33 days over a 32 mile Mohave Desert course that consisted of paved, oiled and dirt roads. The cute little 1932 Victoria averaged 19.64 mpg and burned only 1 ½ pints of oil per 1,000 miles. Of course, a sticker in the window of the car that said "Warning – Do Not Drive This Car Faster Than 45 M.P.H." might have had something to do with the mileage and satisfactory oil consumption results!



Pullen's Victoria is displayed outside by a local Ford dealer in Marysville, CA, after the endurance run. The trunk rack and all signage were added after the run. The sign on the door shows the route of the run – the upper and lower legs are about 11 miles long. Customers seem more interested in the display chassis than Pullen's car, though.

With many of the 1932 V-8's teething problems solved, and a beautifully redesigned car, Ford went "all in" in 1933 and 1934. In addition to impressive showings in road races such as Eglin, Long Beach and the Gilmore Gold Cup, Ford also put forth a major effort to showcase its improved reliability and economy. There was the 1933 Ohio AAA Fact Finding Run, the 1933 Vico Motor Ford test car, and the 1933 "A Years Driving in 12 Days" 10,000 mile economy run.

Mobil Oil was a co-sponsor of this event that began on August 21, 1933, in Detroit. During the next 15 days a stock 1933 Ford V-8 Deluxe Tudor sedan ran from Detroit to Grand Rapids (a shout out to Dave Westrate) to Kalamazoo and back. Fuel consumption was 21.98 mpg while traversing all types of road conditions.



The 10,000 mile endurance run car.



This gaggle of 1933 Fords appear to be replicas of the car above given their unusual paint scheme and lettering. However, I can't find any more info on them.

Continuing on throughout the 1930s Ford used endurance (also racing) and fuel economy as part of its marketing plan to extol the virtues of its V-8 engine, the only V-8 available among the "Low Priced Three." We're probably all aware of the ad campaign in 1935 and 36 which featured a Scotty dog, plaid, and the slogan "Aye, and thrifty too." Billboards of the time also featured a picture of a Greyhound sitting along side a Scotty watching a Ford disappear down the road. The caption of this ad was "It's no use Mac, you'll never catch them."



A 1936 Touring Sedan with white walls and stainless spider hub caps pulls in to a Shell service station as Jim McDaniel bids the driver welcome.

By the time 1941 rolled around both Gilmore and Ford had plenty of experience with endurance and economy runs. Gilmore used the Run in its ads to heavily promote its Red Lion Gasoline saying that

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your car would get better mileage if you used their gas and lubricants. Because of the ton miles per gallon calculation dating back to 1906 upscale cars like Lincoln and Packard had entries in the higher priced classes. The March 1941 issue of **Ford News** reports on the success that Ford and Mercury had in the Gilmore Economy Run but ignores all together the two Lincolns entered. For contemporary information about the Lincolns one has to read the May 1941 **Popular Science** article "Tricks You Can Learn from the World's Stingiest Drivers."

In December 1940 Gilmore announced that the Run would begin on January 9, 1941, cover 599.3 miles and was to be completed in no more than 14 ½ hours (requiring an average speed of 43.01 mph) in order to better simulate real world driving conditions. Participating cars were impounded for technical inspection on January 2<sup>nd</sup>. For several years General Motors had objected to overdrive equipped cars being allowed to compete and decided not to enter the 1941 contest after not getting its way. Twenty four 4 door sedans in 10 different price class participated in the run under the strict supervision of a Triple A Contest Board Technical Team. To ensure that all cars were truly stock, the Tech Team went over all cars from bumper to bumper removing all lubricants and oils, even Ccing the heads to check the compression ratio. AAA mechanics then reassembled the engines, re-lubricated the cars, added the correct amount of S.A.E 10 motor oil and sealed everything movable from clutch linkage to fuel caps. The cars, along with the driver, observer (a driver from a competing manufacturer) and all luggage was also weighed. It was important to know the exact weight of a car in order to correctly calculate the ton miles per gallon which was used to determine sweepstakes and class winners.



The Ford 1941 Ford entered by Al Stuebing Ford of Hollywood undergoes its technical inspection.

Of the 24 entries, 16 of them were equipped with overdrives and, as we know, both Lincoln entries had two! The Ford and Mercury entries weren't equipped with Columbia axles because cars in the Gilmore Economy Run had to be totally stock. While you could have a Columbia installed in your new Ford or Mercury by an independent installer, your local Ford or Mercury dealer couldn't install the unit – hence having a Columbia Two Speed rear axle would have disqualified a Ford or Mercury. Ford actually boasted in the **Ford News** article that its Class B (\$750-\$809)1941 Ford winning entry didn't have an overdrive and lamented that its Second Place Class D (\$915-\$984) Mercury entry was barely beaten by an overdrive equipped car.



The Mercury Fordor, decked out with whitewalls and fender skirts approaches the California/Arizona Agricultural Checkpoint.



Gilmore executive W.O. Headley (I) presents the First Place trophy to William Knoop. It was Knoop's second consecutive win and the 3<sup>rd</sup> in four years for Ford.

Ford's winning B Class entry was sponsored by Al Stuebing Ford of Hollywood and won with 49.557 ton miles per gallon and 23.05 mpg. In Class D the second place Mercury averaged 23.35 mpg and was beaten out by an overdrive equipped Hudson Deluxe 6 that averaged 24.95 mpg.

Runs continued on next page

Runs continued from previous page

While Ford and Mercury scored well in their respective classes it was Lincoln that really cleaned up by winning their respective classes and placing First and Second in the Sweepstakes. The Class J (\$1,700-\$4,000) Lincoln Custom V-12 delivered 57.827 ton miles per gallon and 21.03 mpg while the Class I (\$1,390-\$1,699) Lincoln Zephyr delivered 57.748 ton miles per gallon and 22.96 mpg.

Grand Sweepstakes winning 5,500 lbs Lincoln Custom was driven by first time winner William Marshall Martin who was employed at the Ford Long Beach assembly plant demonstrating Fords, Mercurys and Lincolns. He was also the personal chauffeur for Edsel Ford whenever he visited the West Coast.



Earl B. Gilmore (l), sponsor of the economy run, and Marshall Martin pose with the First Place Trophy on the hood of the winning 1941 Lincoln Custom. The Second Place Lincoln Zephyr is partially visible in the background.

The last Gilmore Economy Run was held in 1941 due to the US's entry into WWII. In 1942 Mobil Oil (which had previously acquired a controlling interest in Gilmore) began to transition the Gilmore stations to the Mobil brand. Earl Gilmore retired from Gilmore Oil in 1944 and the Gilmore to Mobil rebranding was completed in 1945. And economy runs resumed in 1950 under the Mobil banner.

Marshall Martin had a long and successful career with Ford, the Long Beach assembly plant and driving in competitive mileage contests. During the 1950s he was the Director of Security at Ford Motor Company's Long Beach facility. He continued driving Fords in the Mobil economy runs and took First Place in Class A (Low Priced Cars) in 1956 driving a Ford Mainline V-8. The following year he was back driving a six cylinder 1957 Ford Fairlane 500 and took First Place in the 6 cylinder class.

## EARLY FORD FOUNDATION & MUSEUM NEWS



*The next time someone asks you....*

### **"GIVE ME ONE GOOD REASON WHY I SHOULD JOIN THE EARLY FORD V-8 FOUNDATION"**



**Give them NINE Good Reasons.....**

- 1) You own an Early Ford V-8 and want to help preserve its history.
- 2) You want your kids and grand kids to see what cars were like back in the good old days.
- 3) You have lots of interesting Ford V-8 stuff you'd like to leave to somebody who'll take good care of it, yet at the same time share it with the rest of the world.
- 4) You want to be able to do research on the Fords you're restoring, and the Foundation's growing research library will give you a chance to do research first-hand.
- 5) You'd like to learn about all the products that Ford Flathead engines were used in besides cars.
- 6) You appreciate what Henry Ford did when he built the Flathead V-8 and would like to pay tribute to him and his outstanding products.
- 7) You'd like to help support the only museum in the world that features all Ford Flathead-era items.
- 8) You belong to a Ford V-8 Club Regional Group and they're always looking for worthwhile causes to support.
- 9) You're a Ford parts vendor who has done well over the years and feel you'd like to "give back."

## **MEMBERS WANTED**

[www.fordv8foundation.org](http://www.fordv8foundation.org)  
1-260-927-8022

## WELCOME TO THE CLUB

### **Brownie & Dana Carson**

Harpowell, Maine  
[EBC250@yahoo.com](mailto:EBC250@yahoo.com)

1930 Lincoln Locke body Sport Phaeton  
Brownie's looking for a 1935-6 Cabriolet for touring

They are friends of Bill Simons.



## JANUARY MEETING

### Show and Tell

By Bill Potter

During the dead of winter it's always nice to get out and see the gang in between garage tours. The evening's program featured a Ford accessory *Show & Tell* which allowed anyone to participate, providing they could drag in a treasure or two to educate and entertain the crowd. Steve Groves got the ball rolling with a custom made flathead V-8 engine stand designed to attach to the block via the exhaust ports.



Steve's engine stand would be used primarily to display your Flathead.



Russ Brown's engine stand adaptor attaches to the block exhaust ports also and would be used in place of the adaptor which attaches to the bellhousing.

Ken Burns showed up with a foot operated remote radio station selector button with wiring.

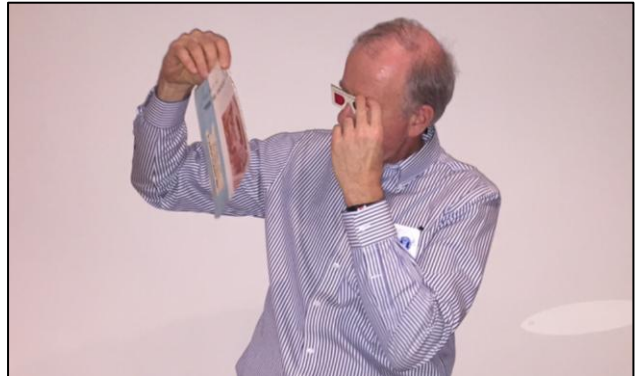


We saw everything from spider hubcaps to a 1935 ashtray used when the car was equipped with a correct Ford radio.



Hank Dubois shows how the 1935 radio head would occupy the space previously taken up by the ashtray.

Most small parts got passed around which is an important part of the experience.



Dave Gunnarson demonstrates the 3-D goggles use in conjunction with a Ford sales brochure.

And then there was Clem who showed up with an entire box full of goodies. The King of Pontification was in top form and just when we thought he was finished, out popped another relic with another story. He had everything from an aircraft landing light to an American flag license plate topper to rare Wig-Wag accessory brake lights. I remember seeing the early version of these lights at Hershey once or twice over the years and they were always expensive.



S&T continued on next page

Clem's flags were old school – they had 48 stars.



Jim Crawford displays sand filled wheel balancing devices that attached to 16" wheels and were supposed to eliminate forever the need to have your wheels machine balanced.

It was my turn to bring refreshments so I turned to Elyse for help. Actually, she handled it all in typical Elyse fashion. Several people remarked that they wished they had skipped dinner and I wish they had too, as I'm still eating roasted turkey rolls.

It was a fun night out with the boys. We laughed; we joked; we learned a few things and as always, the camaraderie was special. What a great club.

### AUCTION RESULTS

#### 1932 V-8 Ford Demonstrator Chassis

By Editor

A few weeks back I received a link from a friend out in California to the recent Barrett-Jackson Scottsdale auction results. The listed results literally took my breath away. A complete 1932 Ford demonstrator chassis sold for **\$220,000** plus buyer's fee!

Here's what the bidder's catalog had to say about this lot number:

"Numerous problems with engine casting delayed the release of the new 1932 Ford V8 until March 31, 1932. In an effort to maintain momentum for the new V8, Henry Ford released a small number (est. 20-22) of chassis to be distributed to the large Metro-area Ford Dealer system. They were then rotated among the dealers and were returned to the factory to receive bodies. Why number 18112592 was never returned is a mystery. What is known is that sometime in the 1960s the chassis was acquired by the Harrah's Collection, where it remained until Harrah's was broken up in the 1980s. It went to a small collection in Florida and was then traded to the McGowen Brothers of Connecticut. Since the mid-'90s, it had been on display at the National Ford V8

Convention, the 75th 1932 V8 Ford Anniversary in Los Angeles and in a special 1932 Ford tribute display at the Petersen Automotive Museum."



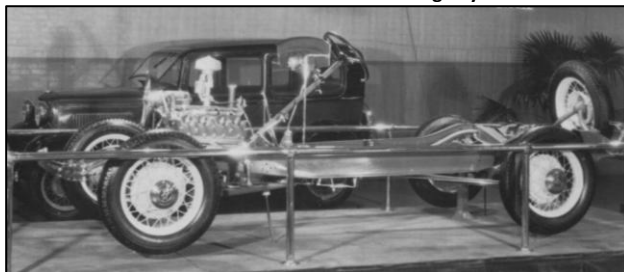
The auctioned display chassis had front seats.



A 1932 V-8 chassis (circled) was on display at the introduction of the new Fords in late March 1932 at San Francisco Civic Auditorium the day before the doors were opened to the public.



This was the scene the following day.



A display chassis at a different display.





## YOU ARE INVITED TO OLD CAR AND TRAIN DAY

**SUNDAY, FEBRUARY 22, 2015 from 12noon to 5 PM**

@

THE CLEMENT HOME  
12106 GARY HILL DR  
FAIRFAX VA 22030

- ✚ Bring your significant other, kids, parents, and any other train, antique or old car lovers to join in the fun and fellowship of antique trains and old cars.
- ✚ Weather permitting, additional antique cars may join us. New additions to the antique train collection are on display and some trains are under power. Bring "show and tell" trains, if you like, and we'll try to run them. If you have trains to be repaired, this is a good time to drop them off.
- ✚ A favorite appetizer, finger food or dessert brought for sharing would be gratefully appreciated.

Sandy and Clem Clement  
Ph. (703) 830-5597 C (571)-239-1701  
Email: [clem.clement@cox.net](mailto:clem.clement@cox.net)





### Vehicles For Sale

- 1948 Mercury 4-door Sedan. Rebuilt flat-head V-8, frame; brakes, radiator, heater, radio, gas tank redone, bumpers re-chromed. Body needs refinished. \$7,500.00 Nego. Extra parts and trim available. **Harry Foor** – Western Maryland, 301-689-9184, [hwfoor@verizon.net](mailto:hwfoor@verizon.net) 01/15
- 1940 Ford Deluxe Tudor Sedan. Reliable driver. Original except for 12v electrical system including electric wipers, turn signals, high torque starter and PowerGen. Fresh engine, clutch, and transmission. New dual exhaust system. Brakes redone as well as steering. The body is original and in original paint except for some touch-ups. LeBaron Bonney interior including headliner. Low mileage 600 x 16 Cokers. All exterior trim, chrome and bumpers, running board covers, replaced with Drake repros. Dash is refinished as original. **Priced Reduced to \$15,900 OBO.** **Bill Tindall** 804-818-3595 (H) or cell 804-972-9570 or [earlyfordguy@yahoo.com](mailto:earlyfordguy@yahoo.com) 01/15
- 1936 Ford Convertible Sedan (trunk version). 80% restored – needs completion. Call for full details. **Wayne Handy** 840-746-1376 07/13
- 1951 Ford F1 Panel Truck – All original V-8 flathead survivor. Needs mostly cosmetic body work and paint but no large dents or structural problems. Runs great! Much ground-up mechanical work already completed. I've **reduced the asking price** to \$8,500 to promote a quick sale. Contact me for pictures and a list of all the mechanical/electrical resto items that have been done. **Allan Edwards**, P.O. Box 2215, Front Royal, VA 22630. [alfromva@aol.com](mailto:alfromva@aol.com), 540-635-6865 (H) or 703-408-8372 (C) 01/15

### Parts and Miscellaneous For Sale

- V8-60 parts – **NOS** unless specified otherwise. 21 rods, appear NOS, \$15ea. 2 Ford boxes of 16 lifters ea. 52-6500-A2, \$125 ea. 4 NOS rods in Ford box, \$25 ea. 3 Ford boxes of 4 split valve guide

pairs ea, 52-6510, \$40 ea. 16 valve springs, appear NOS, \$3 ea. 43 split valve guide pairs, not matched, appear NOS, \$6 ea. 16 valves, \$8 ea. Oil pan, used, needs some repair but usable, \$30. 2 heads still in original box, \$120 ea. Will listen to offers for the whole package. Will deliver to Hershey otherwise there will be shipping. **Mel Herwald.** 540-925-2222. [mherwald@mgwnet.com](mailto:mherwald@mgwnet.com), McDowell, VA, 01/15

- Bumper type tow bar, \$50. ½" drive air impact wrench, \$10. ¾" air ratchet wrench, \$20. compact electronic engine analyzer, \$20. **Bill Selley**, [wsb39@cox.net](mailto:wsb39@cox.net), 703-679-9462 9/14
- Welder with both oxygen and acetylene tanks. It also includes two welding tips plus a cutting torch. I will also throw in a package of steel rods, brass rods and aluminum rods – \$125. Other miscellaneous 1953 Ford parts. **Tom Shaw** – 703-771-9374 7/14
- 1933-34 Parts: 40 year collection of small and large parts left over from 2 frame off restorations. Engine parts of all kinds; 3 21 stud blocks – complete; 3 rear ends and a complete front end; 1 rebuilt '34 radiator; 2 transmissions and 4-5 sets of used gears up thru 1939. Many brake parts. Set of 16" wheels. Adapters to install a 51-53 Flathead in '34 frame. Act now, they're going fast. Put these parts to good use – I won't be restoring another 1934 Ford. **Don Hill** 1308 Bragg Road, Fredericksburg, VA 22407 – 540-847-3363 7/14

### Wanted

- For 1940 Ford – heater switch for hot water heater. – **Bill Chaney**, [flihi@cablefirst.net](mailto:flihi@cablefirst.net) or 804-776-7597 12/14
- For 1935 Ford closed car: the radio speaker with cable and connector to the radio box. **Jim Eberly** – 301-689-9420 – [Jeberly4@comcast.net](mailto:Jeberly4@comcast.net) 7/14
- Driver quality 35-36 Pickup. Contact Nick Arrington – [nta1153@verizon.net](mailto:nta1153@verizon.net) or 703-966-8422 01/15






**NVRG**  
**Calendar**



Valentine's Day 1940, Treasure Island, CA

<u>February 2015</u>	
<b>10</b>	<b>Membership Meeting</b> – 7:00 pm – Nottaway Park – <b>Program:</b> Trico Wiper Motors – <b>Refreshments:</b> Bill Simons
<b>13</b>	<b>Caffeine Double Clutch Breakfast</b> – join us for breakfast and great conversation at the Fair Oaks Silver Diner at 9:30 AM. Drive your V-8 – there will be parking spots reserved for us. <b>Contact</b> Ken Burns <a href="mailto:helenandken@verizon.net">helenandken@verizon.net</a> or Clem Clement <a href="mailto:clem.clement@cox.net">clem.clement@cox.net</a> if you plan to attend.
<b>14</b>	<b>DON'T FORGET VALENTINE'S DAY!</b>
<b>22</b>	<b>Clem and Sandy's Annual Train Day</b> – see page 15 for details.
<b>24</b>	<b>NVRG Board of Directors Meeting</b> – Red Hot and Blue, City of Fairfax. Dinner at 6:30; meeting at 7:30. All welcome to attend.
<b>24</b>	<b>Valve Clatter Deadline</b> - submit articles, want/sell, etc. to Ken Burns – <a href="mailto:helenandken@verizon.net">helenandken@verizon.net</a>
<u>March 2015</u>	
<b>10</b>	<b>Membership Meeting</b> – 7:00 pm – Nottaway Park – <b>Program:</b> Get Ready for Spring – Tune Up Review <b>Refreshments:</b> Joe Freund
<b>TBD</b>	<b>Caffeine Double Clutch Breakfast</b> – join us for breakfast and great conversation at the Fair Oaks Silver Diner at 9:30 AM. Drive your V-8 – there will be parking spots reserved for us. <b>Contact</b> Ken Burns <a href="mailto:helenandken@verizon.net">helenandken@verizon.net</a> or Clem Clement <a href="mailto:clem.clement@cox.net">clem.clement@cox.net</a> if you plan to attend.
<b>27-28</b>	<b>Sugarloaf Mountain Region 45<sup>th</sup> Annual Antique Auto Parts Meet.</b> Doors open at 8am. Carroll County AG Center, 706 Agriculture Center Drive, Westminster, MD. For more info contact: Robert Clubb 301-829-2000 or <a href="mailto:smraaca@aol.com">smraaca@aol.com</a> ,
<b>31</b>	<b>NVRG Board of Directors Meeting</b> – Red Hot and Blue, City of Fairfax. Dinner at 6:30; meeting at 7:30. All welcome to attend.
<b>31</b>	<b>Valve Clatter Deadline</b> - submit articles, want/sell, etc. to Ken Burns – <a href="mailto:helenandken@verizon.net">helenandken@verizon.net</a>
<u>April 2015</u>	
<b>14</b>	<b>Membership Meeting</b> – 7:00 pm – Nottaway Park – <b>Program:</b> 1940 Fords, Lincolns and Mercurys in Review <b>Refreshments:</b> Keith Randall
<b>18</b>	<b>Small Parts Day</b> – hosted by the Model A Club at Janet Merkel's farm in Bowie, MD. More details to follow next month.
<b>TBD</b>	<b>Caffeine Double Clutch Breakfast</b> – join us for breakfast and great conversation at the Fair Oaks Silver Diner at 9:30 AM. Drive your V-8 – there will be parking spots reserved for us. <b>Contact</b> Ken Burns <a href="mailto:helenandken@verizon.net">helenandken@verizon.net</a> or Clem Clement <a href="mailto:clem.clement@cox.net">clem.clement@cox.net</a> if you plan to attend.
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Down the Road



- ✚ **June 8-11 - 2015 Eastern National Meet** – Concord, North Carolina
- ✚ **August 26-29 Motorfest 6** – Early Ford Foundation Museum – Auburn, Indiana
- ✚ **October 3** – Marshall Ford's 100 Anniversary Celebration – Marshall, Virginia



**2015 Board of Directors**  
**NORTHERN VIRGINIA REGIONAL GROUP**



<b>President: Jim McDaniel - 703-569-6699</b>					
Vice President	<b>Bill Simons</b>	703-536-3648	Tours – Team Lead	<b>Hank Dubois</b>	703-476-6919
Secretary	<b>John Ryan</b>	703-281-9686	Tours – Member	<b>Art Zimmerli</b>	703-323-1774
Treasurer	<b>Wayne Chadderton</b>	703-435-1142	Tours – Member	<b>Bill Simons</b>	703-536-3648
Membership – Lead	<b>Dave Gunnarson</b>	703-425-7708	Property/Refreshments	<b>Mark Luposello</b>	703-356-3764
Membership - Member	<b>Gay Harrington</b>	703-888-0180	Historian	<b>Don Lombard</b>	703-690-7971
Programs – Team Lead	<b>Joe Freund</b>	703-281-6282	Webmaster	<b>Cliff Green</b>	703-426-2662
Programs – Member	<b>Eric Sumner</b>	703-860-1916	Newsletter (Valve Clatter)	<b>Ken Burns</b>	703-978-5939
Programs - Member	<b>John Sweet</b>	703-430-5770	Sunshine Committee	<b>Keith Randall</b>	703-913-5655
Fairfax Show	<b>Dave Westrate</b>	703-620-9597			

**February Program: Trico Windshield Wipers**

**Mark your calendar! The February Meeting is on Tuesday, February 10<sup>th</sup> at 7:00 pm in the historic Hunter House, located adjacent to the tennis courts, Nottoway Park, Court House Road, Vienna, VA**



**FIRST CLASS MAIL**

**Regional Group 96  
 Early Ford V8 Club  
 Post Office Box 1195  
 Vienna, Virginia, 2218**