

# Montana 500 Newsletter

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Montana Cross Country T Assn.  
1004 Sioux Road  
Helena, MT 59602

[www.montana500.org](http://www.montana500.org)

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Membership dues \$10.00  
Touring class: \$25.00  
Endurance runner: \$35.00

Cover photo: Doug Langel flags out in 1973.



## Pres Talk

Mike Cuffe

I just looked at a few Montana 500 photos from the website plus the video of Jillian and Mike Robison swapping positions with Dave Warhank during the 2003 Endurance Run out of Bozeman. That was my first year attending the 500, and I will never forget the experience of being the first car flagged out for the initial climb over Bozeman Pass to Livingston. I was hooked, and the next year we hosted it out of my home town in Eureka. Don't know which run I remember most, but the next one coming up is always the best. Fort Benton and 2013 is no exception. Wheat farming and tourism are big in this little town, and transportation history is huge in this one time jumping off point for travel and freight shipments across what became Alberta, Montana, Idaho and Washington. I have spent a couple weekends visiting our hub hotel and driving part of the routes. Will be back to finish in April.

Also to see the tear down site they have planned. Hotel has photo ideas planned, and will be making postcards from them. Other welcoming arrangements are in progress. It will be special.

I have lined up another member of the Montana House of Representatives to bring a Model T to the Montana 500, probably for the touring class. Name is Rep. Duane Ankney from Colstrip from the southeast corner of the state. Maybe we can arrange a future event in that corner east and south of Billings.

We celebrated the 100<sup>th</sup> anniversary of the House Chambers recently in Helena, and my Model T was the subject of many photos from its place of honor in front of the Capitol. CNN filming crew got a ride and shot footage. We had a re-enactment of the 1913 Legislative session, and the bill I introduced was to allow motorized vehicles in Yellowstone National Park. That was an actual bill from 1913.

We are scheduled to finish this session just in time for Eureka Rendezvous Days April 26-28. I am home for Easter right now, and will be preparing the Model T track for the Barnyard Cruisers. Have four coming from Calgary, some from Missoula, one from Kalispell, and I hope one from Spokane.

Also, the Rocky Mountain T Club is planning a Missouri River Tour, including a Fort Benton stop, the week before the Montana 500. Call Dave Cooley for details at 406-253-7253.

In case it doesn't show, I am excited about this year's Montana 500. If you aren't fired up yet, go to our website. Check out photos and videos. Then call a friend or one of the drivers. Get your Tin Lizzie out for a drive. Henry Ford knew what he was doing. So did the guys who started the Montana 500.

Editor's Propaganda  
Tom Carnegie

Just got back from the Chickasha, OK swap meet. Had a great time and bought a ton of stuff. Always fun to go to the Chickasha swap meet as there is always a bunch of T stuff. Got to hobnob with some fellow MT 500 friends, including Nick Nicholas, Steve Coniff, Glen Mc Donald, Mike Stormo, Rick Carnegie, Bill Devine, Gator Gould, Clair Carlson, Stan Howe, John Steele, Rick Bonebright and Garrett Green to name a few. I probably missed someone.

I hope everyone has, or will be able to get a room for the 500. I suppose in a pinch one could stay in Great Falls and commute to Ft. Benton each day.

The Spokane crew has been quiet as far as working on their cars. Skeeter Carlson is building a new car. Nan Robison has a new body for Tweety Bird at the body shop.

Three more months to go!

Please consider receiving this newsletter electronically. That would save the club a lot in postage and handling, plus you would get it soon and it would always be in color. If you would like to receive e-mail newsletters, please send an e-mail to:

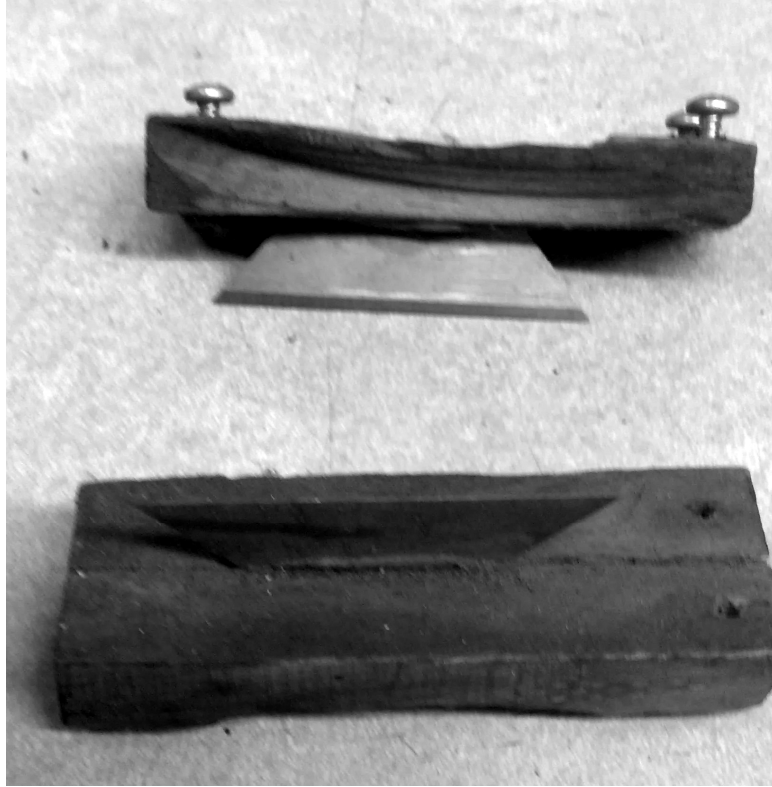
[montana500@antiqueautoranch.com](mailto:montana500@antiqueautoranch.com)

Poor Man's Balancer (part two).  
Tom Carnegie

Rule B2q of the Montana 500 states:  
*“There must be one stock piston, rod  
and cap assembly in the engine. Excep-  
tions: Cap may be drilled for dipper,  
and grooved for oil. The other three (3)  
assemblies can be balanced to this  
one.”*

I think that most folks will agree that a well balanced motor is a happy motor, but balancing three rods to a fourth one can be a bit tricky. This is how I do it.

The equipment you need will be a .750” wrist pin, a digital postal scale and a set of knife edges. A flathead for V-8 wrist pin, circa 1948 is .750” and should be easily obtainable. Most cheap postal scales have .1 ounce increments, which is OK, but one gram increments would be better. .1 ounce is 2.8 grams. The knife edges that I use are made from box knife blades embedded into a piece of wood.



***Box knife blades embedded into wood.  
There are three screws to level the blades.***

First, I find four fairly light rods to begin with. I then have them babbitted, sized and otherwise finished the way I intend to run them. I then weigh each on the postal scale. At the time of this writing a suitable scale is available at office supply

stores for less than \$100.00. The lightest rod will become the “standard”. Material is removed from the three “heavy” rods until their weight approaches that of the light rod. Ultimately, we want the overall weight of all of the rods to be the same. Be careful to not get grit into the babbitt if you grind on the rods.

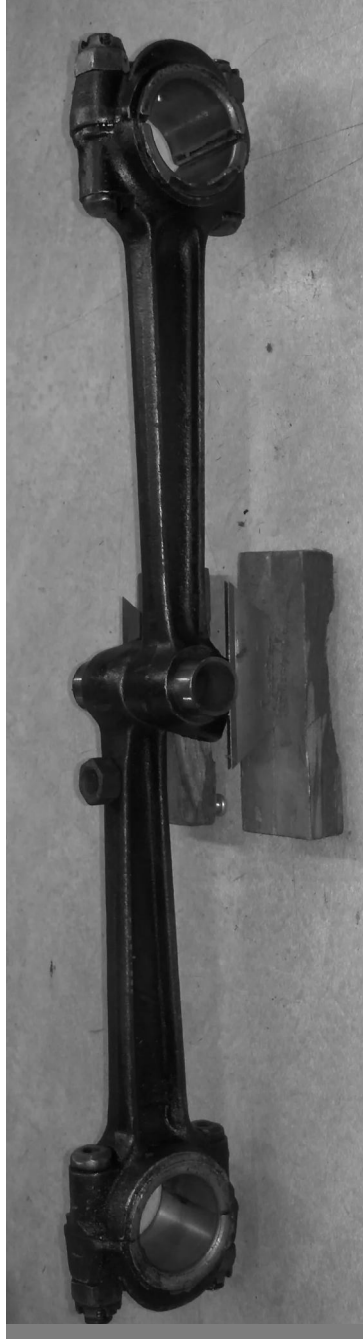
Next thing is to ascertain that the light rod has the lightest “big end”. The big end is the end that goes onto the crank pin. Usually the big end of the light rod will be the lightest, but if it is not, there are a few tricks that you can do to make it relatively lighter. One trick is to turn the outside diameter of the babbitt down. I do this by clamping the rod onto a mandrel and turning the babbitt off on a metal lathe. Another is to use heavier rod cap bolts in the heavy rods. Rule D2 states: Rod bolts and nuts choice (are optional). One



trick that I have seen employed but don't approve of is to add weight, usually in the form of a bead of weld to make the heavier rods heavier, if needed. It seems to me that this practice could weaken or distort the rod or damage the babbitt.

I have tried various methods to weigh the big ends of the rods. One popular way is to support the little end of the rod with a string, and weigh the big end on the scale. This works, sort of, but where the fulcrum point is makes a difference and is hard to get exactly the same on each rod. Here is a description of the process that I use to determine if the big ends of two rods are the same weight.

Put the small end of the standard rod and one heavy rod onto a common wrist pin. As I mentioned before, flat-head Ford V-8 wrist pins are .750" in



*Rods on knife edges. Note nut used to balance the rods.*

diameter. The stock Model T wrist pin is .740" in diameter, so the T rods will "grip" nicely to the V-8 wrist pin without any sort of clamp bolt. Set up the two rods so that each big end is extending 180 degrees from the other big end. Then put the wrist pin onto a set of knife edges. The heavier big end will drop. If the heavy rod drops, more weight needs to be removed from it.

Now the trick, and it is a bit tricky, is to get the rods to all weigh the same and at the same time get the big ends to weigh the same. If the entire rods all weigh the same and the big ends all weigh the same, the rods are balanced. You may want to practice on a set of junk rods that you don't care too much about to get a feel for the process. If you do this carefully you will have a well balanced and happy set of rods.

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