

Montana 500 Newsletter

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

www.montana500.org

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Cover photo:

Tom Carnegie hearts Libby. If you have a photo that you would like to see on the cover of the Montana 500 newsletter, please send it to: montana500@antiqueautoranch.com



Pres Talk
Mike Cuffe

Excitement continues to build in Lincoln County for the coming of Father's Day and the beginning of the Montana 500. The Venture Motor Inn regularly let me know about drivers signing up.

I won't say much about the routes yet, but I think you will like them. As winter conditions pass I will be able to decide on a few routes, depending on pavement breakup.

I don't need to encourage you guys and gals to get your T ready. Timberline Ford offers teardown space, others have offered shop space. There is ample space to park trucks and trailers near motel. I am jazzed more each day.

Additional notes on the side of fun at Libby:

- 1.They are looking forward to those of you who are checking in Friday and earlier. You will get early interest. Casino operators say bring a few dollars, they want to pick your pockets.
- 2.Sounds like the Igniters Car Club, Chamber of Commerce and others have some things planned for Sunday.
- 3.Libby Care Center is hoping some will bring Model T's to the rest home. They will bring a van down to the Sunday check in.
- 4.The museum, which regularly holds Model T tours, is hoping to see us, and there has been some talk of a startup party for a newly acquired truck.
- 5.Libby Dam and Lake Koocanusa are fascinating attractions. It's pretty neat to go inside the dam and view the huge turbines and special tools. Many of you use power from this facility when you flip the light switch.
- 6.The impressive river power is awesome. You can get a close up view from the swinging bridge across Kootenai Falls. It is a short and beautiful hike. If you watched the film "The River Wild," you saw Kootenai Falls. Kevin Bacon and Meryl Streep.
- 7.The Ross Creek Cedars provide a majestic and solemn experience. Huge trees. Great hikes.
- 8.See the airport and Fire Tower at Libby Airport where "Always" was filmed. Steven Spielberg, John Goodman. Holly Hunter, Richard Dreyfuss.
- 9.Fly Fish the Blue Ribbon Kootenai River or go for a big one on the rocks below Libby Dam where the world record was landed by one of my crewmen in the plywood plant.
- 10.Hike the Cabinet Wilderness Area. It borders almost on the city limits, or play Cabinet View Golf Club.
- 11.Someone will encourage you to make a Yaak Attack. That is a road trip through Montana's northwest corner with stops at each country bar. Not as many bars as there used to be, but take a designated driver and plan to waste time the next day with a head ache.
- 12.Visit the new golf cart manufacturing facility.

Toll free number for the Venture Inn and Restaurant is 800-221-0166.

Questions? Call 406-293-1247 or email mcuffe@interbel.net

Editor's Propaganda
Tom Carnegie

About this time of year the Montana 500 guys from Spokane start speculating about who is going to show up to the run in June. We usually do a fairly good job of guessing, at least in my opinion we do. We always rate each potential driver on a scale of 1 to 10. One would be a 10% chance of coming and 10 would be 100%, and so on. Sometimes folks say that they are coming, but we don't always believe them, so we give them a low number. We know certain people have cars that are down, so we give them a lower number.

I went to the Chickasha swap meet and met up with several past Montana 500 drivers. Had a good time talking to Steve Coniff, Dennis Powers, Sandy Watt, Stan Howe, Nick Nicholas and Garrett Green. Did I forget someone?

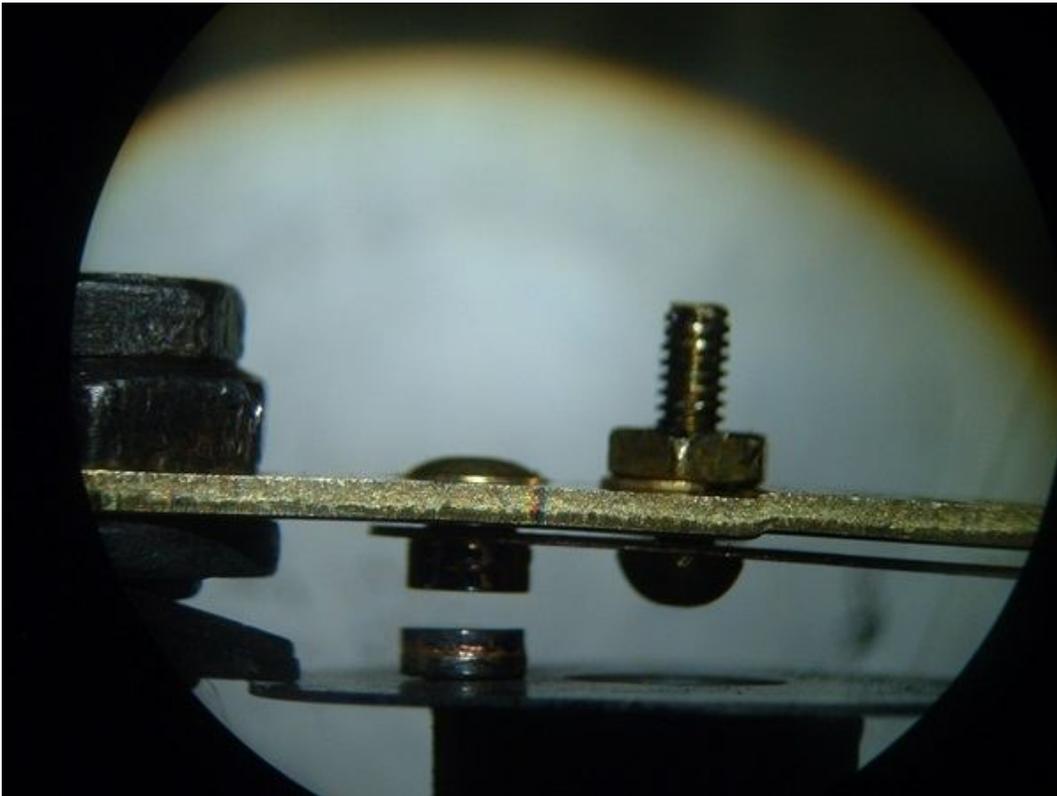
Please email montana500@antiqueautoranch.com and ask to receive the newsletter electronically if you are not already.

Cushion Spring Tension
Mike Kossor
(copied from MTFCA forum)

The thing that makes coil points difficult to adjust for optimal performance is the number of interacting variables. The ones typically adjusted are:

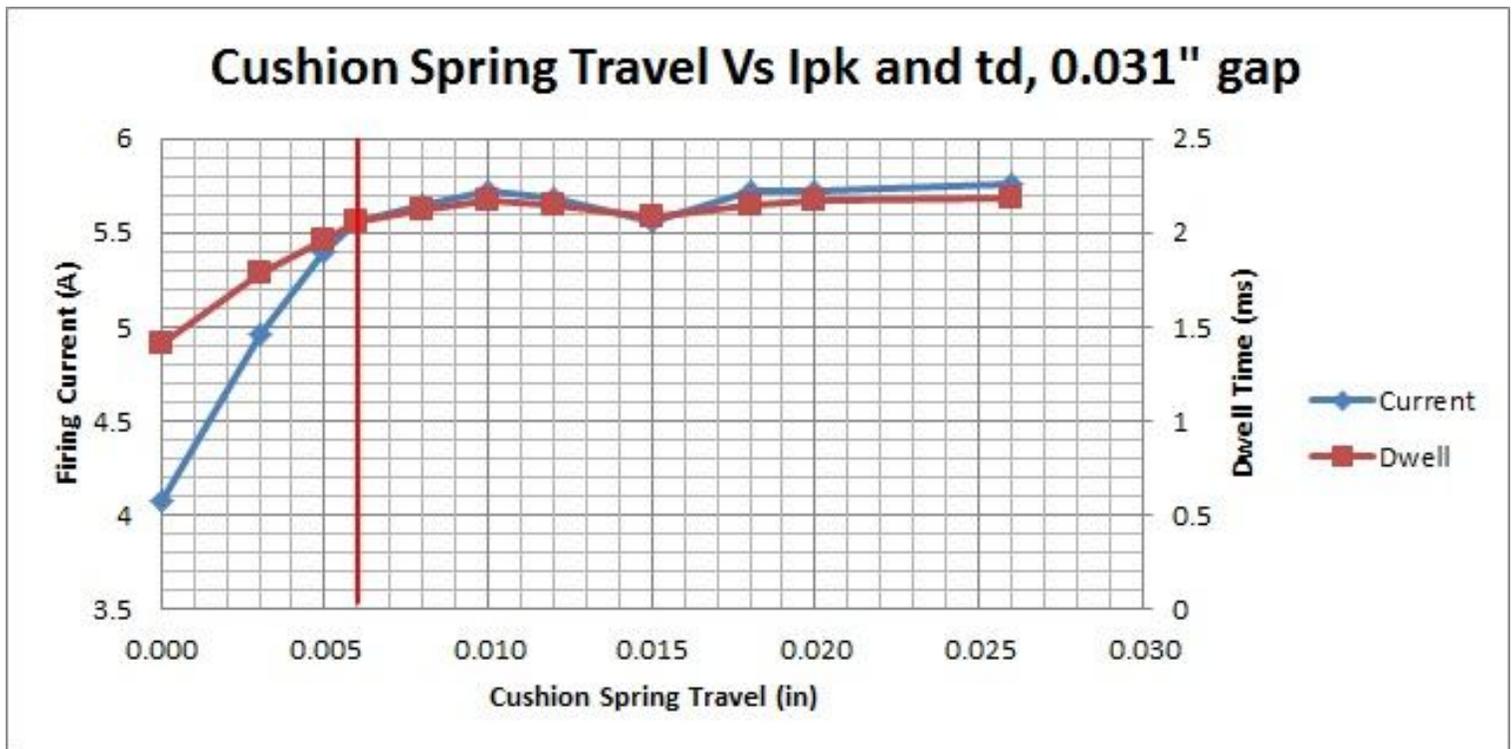
1. Point gap
2. Vibrator spring tension
3. Cushion spring tension
4. Limit rivet height

A common attempt to minimize the number of possible combinations is to specify fixed values for some of them like Point gap = 1/32" and Limit rivet height = 0.005". I've seen other favored values cited by folks that feel work best for them but do not cite the basis for their reasoning; perhaps an elevated wet finger. I searched the forum but found little technical basis so decided to take some data of my own to charac-



terize the effect of the limit rivet height without changing any other variables. This would be difficult to do if not for an ingenious arrangement that Garrett Green introduced me to shown below:

The limit rivet on a brand new set of points was drilled out and tapped for a 2-56 screw then a brass machine screw was installed with brass shim washer and lock nut. The cushion spring travel can be adjusted from anywhere between 0 and 0.030" with this arrangement. I used an optical microscope with graduated eyepiece calibrated in thousandths of an inch to accurately measure and set the cushion spring travel to specified values. I set the limit rivet for 0.010" and adjusted the point gap to 0.031" then adjusted the vibrator spring tension and cushion spring tension coil for consistent firing. The coil was fired by applying a 12V DC for a brief duration sufficient to fire a single spark (about 4ms) using



precisely timed electronic switch. The current ramp up dwell time and peak firing current was measured for a range of limit rivet heights. Here is the data I took in graphical form:

It is interesting to note that for the point gap, vibrator spring tension and cushion spring tension of this coil; the effective range of the limit rivet is about 0.006”.

This is because adjusting the limit rivet height for less travel effects the dwell time and peak firing current. Beyond 0.006” it does not. That is because the vibrator spring contact pulls away from the cushion spring contact after traveling about 0.006” regardless if the cushion spring hits the limit rivet or not. So for the combination of variables for this coil, a rivet height of 0.010” – 0.012” is too much since the contacts have already pulled away from one another without the benefit of the limit rivet function to effect an abrupt separation and minimize the chance of point arcing. What I learned is that relying on pre-set values of point gap and limit rivet height are not sufficient to achieve optimal coil firing performance.

There needs to be some way to actually measure the firing consistency given the specific combinations of these interacting variables for each coil if you really want to achieve best performance in my opinion, based on measured data, not wet finger in the air or hype.

My View of the Montana 500
Alex “Sandy” Watt

The first time I heard about the Montana 500 was several years ago from Garrett Green. He would come back from his yearly trip to the 500 and give a presentation at the Orange County Model T Club General Meeting. I was curious about the event, but my work schedule didn't allow me to go any further than think that one year I would participate in the Touring Class. Over the next few years several of my friends including Dan Diaz de Leon, Chuck Harrison, Stew Harvey, and John Herd, have joined the regulars, Sonny Bishop, Lee Orr and Sergio Hernandez, and entered the event, all coming back raving about the good time that they had. Garrett and others kept hounding me to enter but as the only running T we had was my wife's, that had been rebuilt over 20 years ago, I decided that it wasn't a suitable car for the event, as it would require a complete tear-down and rebuild.

Then after the 2012 event Garrett came back saying that Tom Carnegie was planning on driving his Coupe in the 2013

event, and asked me if I would be willing to drive his Coupe. It took me about one nanosecond to reply yes. Getting to be a “Team Green” driver is very special, and puts a lot of pressure on you to go the extra bit for Garrett. The Coupes were not considered to be “competitive” with the lighter T’s, and before the event my whole thought process was what can I do to get the most out of the car, and more importantly get the best out of me. I hadn’t spent much time behind the wheel of our T in the past several years, as I was busy on the restoration of my Argyll, and assembling our 26 T special. I had planned on getting more wheel time in our T, when Hurricane Sandy hit and I was off to New York for a month of disaster relief. Time started to catch up with a trip to Chickasha by way of Ohio to pick up REO parts (but that’s another story), then the Bakersfield meet, and before I knew it we were less than a month from the Montana 500. Garrett had been working diligently on the car, and I was finally able to get behind the wheel about 10 days before we were to leave for Fort Benton. This is where Garrett started to have serious doubts about his decision to ask me

to drive. He took me out in the car and showed me his driving style, saying that this would help me. I then got behind the wheel and completely changed my driving style to mimic Garrett's. BAD MOVE. Coming back into his driveway I almost put the car through his back fence. At this point Garrett realized what had happened and told me to go out by myself with the car and practice. I then switched back to my own driving style, added in a few of Garrett's techniques and no more problems except that the seat was too far back and I needed a cushion to move me forward far enough to comfortably reach the pedals. By this time my total driving distance in a T over the last 10 years was now about 25 miles, and none of them at full throttle. This doesn't sound like a logical way to approach a long distance drive, but this is how I have always done things. (Years ago I competed in a 75 mile bicycle race and I went into a strict practice regime for the event not riding over 2 miles a week for a couple of months before the event as I didn't want to tire myself out before the race). Finally I got to Fort Benton, and unloaded the car. First item was tech inspection. As

we were rushing to get the car finished, we forgot to put seal holes in the head studs, oil pan bolts or carb studs. Luckily there was a drill available and we were able to get the necessary holes drilled and get the car through tech. Then it was off to the driver's meeting and getting our starting position and route instructions.

Next morning I was 5th in line with all the other cars waiting for the start. I have raced motocross as well as competing in the La Carrerra Classic (an open road race in Mexico), so I knew how my level of excitement was going to be, but there were the normal butterflies as I didn't want to let Garrett down and blow it for Team Green. Leg One was a good start and I managed to pass a car, and the coupe was running far more competitively than I had imagined. Leg 2 was the 75 mile leg, and the car ran great for the first 25 miles then everything went "pear-shaped". The engine started to miss and my speed dropped about 5 mph. I tweaked the mixture and the timing but couldn't get it running smoothly, and then the question – Should I stop and try to diagnose the problem, or keep going and nurse it to the fuel stop. As I was still able to run

at close to 50mph, I decided that the best thing was to continue and get it taken care of at the fuel stop. Even though I was passed by 3 cars, this turned out to be the right choice as I only lost about 6 minutes and if I had stopped for a roadside repair it would have taken longer. The culprit was a dead #2 ignition coil. The coil was replaced and the car was back running as it should. The next few legs showed this as Tom Carnegie was directly behind me on leg 3, and over the next 3 legs Tom was able to get within about 15 seconds of me over the total leg distance, and even more positive to my psyche was that at the end of Day one I was in 7th place, only 3 seconds behind Gene Carrothers in the other Team Green Car.

After the run on Day 1, I had come to feel very comfortable in the Coupe, and realized that the car was actually competitive with the other cars, so this meant it was now ears down all the way. Day 2 was pure enjoyment, and I was surprised to get the car up to 67mph on several of the downgrades. I passed several cars, and was able to stay ahead of all the cars behind me.

Day 3 got off to a bad start when I missed

the first turn, and ended up losing about 90 seconds getting back on the correct route. At the end of the run to Belt and back, I found I had used up all the adjustment on the brakes, low pedal, and reverse. (Isn't this how you are suppose to drive a race car – have all the parts last as far as the finish line?)

Teardown was interesting to me as the only car with a real teardown was the 1st place car, and the 2nd and 3rd cars only had a cursory check. If the first place car had been DQ'd then the next car would be inspected and the 4th place car would move up in standing. What this brought to my mind was what if the 1st place car was legal and either of the next 2 cars had problems. Well that is one for the Committee.

After I got back home, everyone was asking if I had got hooked after running the event. My answer was no. I knew I was hooked before I got to Montana, and just needed to run to confirm, and I went and bought a car for the Montana 500, less than 2 weeks after I got back home. The car had been taken apart 40 years ago, so at least it doesn't have to be dismantled. I had hoped to have the car for the 2014 event, but fam-

ily situations including moving to SD have delayed this. I will have the car for 2015 Montana 500, but I will be there in Libby either to run a trouble trailer, or as a driver if someone is willing to lend me a car. I have to thank Garrett Green for asking me to drive as a member of Team Green. In the Vintage Ford July/August 2013 article by Jay Klehforth, the 2 major teams were compared to the Penske Team (Carnegie) and the Ganassi Team (Garrett). This was rather appropriate as both Team Ganassi and Team Green had Scottish drivers. Chip Ganassi had Dario Franchitti, and Garret had me. I have been behind the wheel of a Stock car, a dragster, and a Formula Ford single seater, as well as competed in vintage motocross and motorcycle trials, and I have to admit that the Montana 500 is definitely the most exciting and fun event that I have had the opportunity to participate in.

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