

Montana 500 Newsletter

Oct.-Dec. 2010

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

www.montana500.org

2011 Officers and Directors:

President: Mike Stormo
Vice President: Mike Robison
Secretary: Jillian Robison
Treasurer: Janet Cerovski

Directors:
Mike Stormo 2013
Mike Robison 2013
Janet Cerovski 2013
Tom Carnegie 2012
Doug Langel 2012
Mark Hutchinson 2012
Nan Robison 2011
Tony Cerovski 2011
Garrett Green 2011

Meeting Secretary: Jillian Robison
Correspondence: Tom Carnegie
Newsletter Editor: Tom Carnegie

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

Cover picture: 2010 Winner: Nan Robison

EDITOR'S PROPAGANDA

Tom Carnegie

Well, the endorsement from the Montana 500 newsletter was apparently enough to put Mike Cuffe over the top. He's now a Montana State rep. Congrats Mike, but somehow I'm reminded of the story of the the bulldog who grabbed a cow by the snout. Once he got it, what would it do with it?

Harold Olson, a native of Conrad, MT. has been helping us with routes and teardown spots and hotels and such. Thank-you Harold. The base hotel will be the Super 8. The rate is \$73.85, reduced from \$86.00 Let them know you are with the Montana 500 for the special rate. The phone number is 406-278-7676

President's Message

Mike Stormo

Hello from cold, wintry, eastern Washington. The fire is going in the shop and 500 thoughts are going through my mind. I have been talking to some of the drivers and speed seems to be the main topic. I would like to caution everyone that it is still an endurance run. This year my goal is to make the run 500 miles or more. The course is being planned and should be firmed up soon. The route should be very scenic and challenging for 2011. My last suggestion is to drag the old racer out of the barn and wash the pigeon poop off early this year because the competition is going to be fierce. The more time that you put into your car, the more fun you will have in June.

The Annual Meeting of the Montana Cross Country T Association – 2010:

The meeting was held in Missoula, MT on October 10th, 2010.

The meeting was called to order by President Mike Robison at 11:02am.

Officers, members, and guests present: Donald Carnegie, Susie Carnegie, Nan Robison, Dave Robison, Tom Carnegie, Jamie Allen, Mike Robison, Jillian Robison, Janice Hutchinson, Mark Hutchinson, Rick Carnegie, Doug Langel, Bill Mullins, Randy Lyman, Holly Lyman, Mike Stormo, Janet Cerovski, Tony Cerovski, and Jackie Stormo.

The floor was opened for nominations for President. Mike Stormo was nominated and seconded. There was a motion to close nominations and cast a unanimous ballot for Mike Stormo as President. Motion passed and Mike Stormo was elected the new President.

Mike Stormo asked everyone to introduce themselves and share how long they have been involved in the Montana 500. New faces noted were:

- Randy and Holly Lyman – They purchased Jim Halseth's Model T from Tom Carnegie and intend to race in June 2011.
- Jamie Allen – He purchased a 1926 Touring in Montana and intends to race in June 2011.
- Donald Carnegie – He purchased Grant Lundin's car and intends to be a third generation Montana 500 racer in June 2011.

The floor was opened for nominations for Vice President. Mike Robison was nominated and seconded. Dave Robison was nominated and seconded. Tony Cerovski was nominated and declined. There was a motion to close nominations. There was a vote and Mike Robison was elected the new Vice President.

The floor was opened for nominations for Treasurer. Janet Cerovski was nominated and seconded. There was a motion to close nominations and cast a unanimous ballot for Janet Cerovski as Treasurer. Motion passed and Janet Cerovski was elected Treasurer.

The floor was opened for nominations for Secretary. Jillian Robison was nominated and seconded. There was a motion to close nominations and cast a unanimous ballot for Jillian Robison as Secretary. Motion passed and Jillian Robison was elected Secretary.

The floor was opened for nomination of a two year Director position. Mark Hutchinson was nominated and seconded. There was a motion to cast a unanimous ballot for Mark Hutchison as a Director. Motion passed and Mark Hutchinson was elected to a two year Director position.

The floor was opened for nomination of a one year Director position. Garrett Green was nominated and seconded. There was a motion to cast a unanimous ballot for Garret Green as a Director. Motion passed and Garrett Green was elected to a one year Director position.

The floor was opened for nomination of another two year Director position. Nan Robison was nominated and seconded. Bill Mullins was nominated and seconded. There was a vote and Nan Robison was elected to a two year Director position. There was a motion to amend the Director position to a one year term due to reviewing the list of directors after the vote. It was seconded. The motion passed and Nan Robison was elected to a one year Director position.

The Director listing and years of term expiration is as follows:

- Tony Cerovski – 2011
- Garrett Green – 2011
- Nan Robison – 2011
- Mark Hutchinson – 2012
- Doug Langel – 2012
- Tom Carnegie – 2012
- Mike Stormo – 2013
- Mike Robison – 2013
- Janet Cerovski – 2013

The minutes (as printed in the newsletter) were passed around. No corrections were noted. There was a motion to approve the minutes as printed in the newsletter and presented at the meeting. It was seconded and passed.

A statement of the cash inflows and expenses paid for at the 2010 run was presented. Cash inflows at the run were from membership dues, run and tour fees, and the sales of shirts and hats. The total inflows were \$1,410.00. Expenses paid for the run were \$150.75 for gasket sets, \$444.25 for shirts, \$234.00 for hats, and \$40.75 for magnets. The total income was \$540.25 after the abovementioned expenses, and this amount does not include any prepaid dues or fees not collected at the 2010 run.

The floor was opened for rule changes.

There were some questions about the basic shape of the carburetor and what that is. Restrictor plates were discussed. There was a motion to form an ad hoc committee, with Randy Lyman as the committee chairman, to develop a gauge to attempt to objectify the testing of the basic design of the carburetor. There was second. There was a lot of discussion. Tom Carnegie and Mike Robison volunteered to be members of the committee. There was a vote and the motion passed.

There was some discussion about the carburetor gauge. The gauge itself is expensive to make and there is only one official gauge. It was decided if you would like to mail your carburetor to Spokane, the president and a few directors will test your carburetor and mail it back to you. However, this test is not a guarantee it will pass in June.

There was some discussion about restrictor plates. Tony Cerovski proposed

that a committee be formed to discuss restrictor plates. No committee was formed due to lack of interest.

There was a motion to change the race location to Spokane. Motion died due to a lack of a second.

There was a motion to allow aftermarket high speed clutches, specifically the Watts Clutch or the Turbo 400. It was seconded. Discussion included possible advantages to this being easier to crank start, easier to push the car, easier to balance – as an assembly, and people have them in their car. Possible disadvantages discussed included the aftermarket clutch being less robust and the originals rarely failing. The question was called and the motion failed.

There was a motion to add a rule stating “Drivers are responsible for following the prescribed route. Failure to travel the entire prescribed route will result in an assessment of slow time for that leg plus a penalty of fifteen minutes or actual time, whichever is greater. Flaggers or signs may be posted as deemed necessary or advisable.” The motion was seconded and discussed. There was a motion to amend the motion to strike “or actual, whichever is greater” from the original motion. The amendment was seconded and passed. There was a vote on the amended motion. It passed.

There was a motion to add to rule #31 “from either side.” It was seconded and passed.

There was some discussion about the head cc measurement procedure, rule #57. Discussion about changing the rule included the use plugs instead of spark plugs or the use of clay, measuring with or without the head gasket, and if the carbon should be cleaned out or not. There was a motion to change the cc limit in rule #57 to 270 cc and add to the rule “The head will be measured without the head gasket, without spark plugs, and spark plug holes will be plugged with clay to be flush. One stock combustion chamber is required, the other chambers to mimic the stock chamber.” The motion was seconded. There was discussion about changing it to say “Head must be in racing condition with the spark plugs used to race, with head gasket in place, and carbon must be wire brushed from head. No filling allowed.” There was a motion to make an amendment to the original motion by adding “No material can be added to the combustion chamber to equalize.” The amendment was seconded and passed. The question was called and the original motion with the amendment passed.

There was some discussion on what “optional” in the rules meant. There was a motion to add a rule stating “Optional equipment must serve the original equipment purpose and no other purpose.” It was seconded and passed.

There was a motion to add a rule stating “The use of Model T Ford and Model A Ford valve springs is allowed.” It was seconded. There was a motion to amend the motion to read “Only stock Model T Ford and Model A Ford valve

springs are allowed.” The amendment was seconded and passed. The original motion was voted on as amended and passed.

There was a motion to add a new rule stating “Routes will be planned to avoid running through stoplights under time.” It was seconded and passed.

There was a motion to add a new rule stating “Drivers must drive at or below posted speed limits.” It was seconded and passed.

There was a motion to change rule #72 to strike the sentences “None of the inspectors may be a driver of the car to be inspected.” “An inspector who is the driver of the car coming up for inspection due to disqualification of another car will be replaced by the directors with another inspector.” It was seconded. There was some discussion about the top position not being an inspector and how a driver of the car can participate in the tear down of the car. There was a motion to amend the original motion by adding a sentence to the rule stating “The driver in the top position at tear down cannot be an inspector, but the next five place drivers are required to be inspectors for the tear down.” Also in the amendment was to strike from the first sentence of rule #72 “appointed by the Board of Directors.” The amendment was seconded and passed. The original motion was voted on and passed.

There was a motion to change rule #58 to include “+ / - .030” after 4 inches. It was seconded. The discussion included how the “stock stroke” means piston sweep. The motion passed.

There was a motion to add a rule stating “All runs must be at least 500 miles under time.” It was seconded and motion failed.

There was a motion to strike from rule #77 “plus a daily penalty of one hour.” It was seconded and passed.

There was a motion to flag cars out on the second day in reverse order by the speeds of the legs finished. It was seconded and passed.

There was a motion to not allow a piston to be pulled out during tear down inspection. It was seconded and passed.

There was a motion to change the rules to only tear down the top position car. It was seconded and failed.

There was a motion to add a rule stating that if a faster car catches a slower car that the slower car should let the faster car go by. It was seconded. Discussion included how to police this and what the ramifications would be. Motion failed.

The floor was opened up for new business.

There was a motion to hold the 2011 run out of Conrad, MT and make it a memorial run to Bud Peters. It was seconded and passed.

There was a motion to hold the 2011 run the third full week in June, June 19th to the 23rd. It was seconded and passed.

There was a motion to form an ad hoc committee to create a manual of tear down procedures and order with Bill Mullins as the committee chair. It was seconded. Tom Carnegie, Tony Cerovski, and Mike Robison will also be on the committee. The motion passed.

There was a motion to form an ad hoc committee to reorder, realign, and streamline the rules. It was seconded and passed. Mark Hutchinson will be the committee chair and Jillian Robison and Nan Robison will also be on the committee.

There was some discussion about making a handout of any rule changes before the meeting. There was discussion about the bylaws and if the rule changes are required to be published. The bylaws state that there must be a notice of the meeting. The bylaws can be changed by a 2/3 vote of members at a meeting.

There was a motion to hold the Fall Meeting next year in Spokane. It was seconded. The motion was ruled out of order due to the bylaws stating that the meeting must take place at the clubs place of business or where the President decides to hold it.

There was a motion to open a post office box in Missoula at a mail box service and have the mail forwarded to the President or Treasurer, as needed. This will create a permanent address and place of business for the club. It was seconded and passed.

The floor was opened up for old business.

Mike Robison received a survey from the MTFCl about tours and member satisfaction. It was passed around.

There was some discussion about getting some advertising for next year's run.

There were a few questions about piston coating and lifter coating.

There was a motion for Mike Stormo to look into shirts for the 2011 run. It was seconded and passed.

The meeting was adjourned at 2:30.

The Sweet Spot
(What it is, and why it's important)
by Tom Carnegie

Maybe you have heard one of your fellow T drivers talking about getting their timer set in the "sweet spot". I suppose there are a good number of T drivers that just throw the spark lever "full up" to start, and throw it "full down" to run. That may serve for casual touring (it may not too), but I am certain this isn't the way that most successful Montana 500 drivers operate their spark lever. Montana 500 drivers tend to adjust the spark lever until the engine runs its best. Some of these drivers then will mark that spot on the spark quadrant with a clamp or a pair of vise grips or something of the sort. Some continually manipulate the lever, always hunting for the sweet spot. When you find the sweet spot, you usually know it. Your T just runs better there. If you are having trouble finding or maintaining the sweet spot, there are things that you can do to help. I will list a few things to look for, or to do.

1. Make certain that the timer has plenty of advance. That is, make sure that there is enough advance to slightly over advance the timing. Then you can back off to the sweet spot.
2. Make sure the timing is consistent from cylinder to cylinder. A good test for this is to ground out the plug wires, then with the key on battery, and with some sort of an indicator on the front pulley, crank over the motor slowly, and note where each coil buzzes. Off center or poorly made or adjusted timers can cause inter cylinder timing issues. If your front cover is off center there is no fix with most timers short of realigning the cover. However, an Anderson style timer can be adjusted to compensate for a misaligned cover. It is outside of the scope of this article to go into that procedure.
3. Try to make the entire timer linkage have as little slop as possible. The little lever at the bottom of the steering column is usually quite loose. If you cannot tighten it by peening the lever rivet, you can braze it on solid. It makes it difficult, but not impossible to remove later, but certainly takes the back lash out.
4. Try to have the timer tight enough and the lever at the quadrant tight enough so that the timing doesn't tend to drift. If there isn't enough friction, the motor will tend to retard the timer.

You may be able to find the sweet spot, but what exactly is it? Very simply it is setting the timer so that the rotor makes contact when the magneto is producing no voltage (the null point). There are two chief reasons why this is important. One is timing, the second is arc prevention. I will briefly explain.

When operating on magneto, where the spark is produced in relation to the position of the flywheel is somewhat fixed to the sixteen voltage pulses produced by the magneto. The spark timing is fairly stable if the timer is within seven or so degrees of the null point. At around 11 degrees it becomes very unstable – that is, the timing will tend to jump from one voltage peak point to the next. (See article “Perhaps More Than You Wanted to Know About The Model T Ford Ignition System” Montana 500 Newsletter Vol. 10 no. 2). Even a one degree difference in timing between the timer contacts could result in erratic timing, if the timer were set at this point. If you were to set the timer in the sweet spot the worst segment would have to be off close to ten degrees before stable timing of all cylinders would become difficult. The voltage on the T magnetos produces voltage of one polarity (say positive) for 22.5 degrees, then 22.5 degrees of the other polarity, and so on. The longer the timer makes contact on a certain polarity, the better the chance of stable and accurate timing. If the timer closes at the null point it will have the full 22.5 degrees of the same polarity to draw electricity from. If the timer makes poor contact due to bouncing or corrosion or the like, it has a better chance with more of the waveform available to use.

Timers typically close for 90 degrees of crankshaft rotation. Though theoretically 22.5 degrees should be enough, I think there are two reasons for this. One is to make certain that there is enough dwell to utilize the entire pulse of voltage (in case you are not in the “sweet spot”, or have poor timer contact). The other reason is that if the timer has a dwell that is close to a multiple of 22.5 degrees, it is more likely that for it to close and then open the circuit when there is little or no current. Closing the circuit on a null point not only helps make the timing stable, it also prevents arcing. If the timer closes when there is no voltage – there can be no current and hence no arcing. If the timer opens on a null point, though there is no voltage being produced by the magneto, there will likely still be some current in the circuit (for various reasons) but, there shouldn't be much, and hence arcing is reduced upon the opening of the circuit at this point.

GENERAL RULES

Note: All cars that tour along must meet the rules flagged with a *.

Note: 2010 Newly adopted or changed rules in italics.

1. * These rules dated October 10, 2010 supersede all others. They are intended to outline current acceptable practices. Deviation beyond these practices may result in disqualification. Directors are responsible for interpretation of all the rules pertaining to the Association. Decision of the Directors is final.
2. * All cars must comply with Montana license and insurance requirements.
3. * No alcoholic beverages will be allowed in competing cars. Substantiated violation is cause for disqualification.
4. * Drivers performing in an unsafe or unsportsmanlike-like manner will receive 1 warning. Second infraction may result in disqualification upon review and affirmative vote of 2/3 of the remaining drivers.
5. Not more than two people are allowed per endurance car while under time.
6. * All drivers and relief drivers must be a paid-up member of the MCCTA.
7. * Tailgating of any kind is not authorized or condoned by the MCCTA. must maintain a safe following distance. tailgating of support or tour vehicles or any non-participating vehicles.
8. *All participating cars must have attached or placed directly on both sides a sign with name of sponsor or owner and hometown. Use three (3) inch letters preferred.
9. **Drivers must drive at or below posted speed limits.*
10. Drivers are responsible for following the prescribed route. Failure to travel the entire prescribed route will result in an assessment of slow time for that leg plus a penalty of fifteen minutes. Flaggers or signs may be posted as deemed necessary or advisable.
11. Routes will be planned to avoid running through stoplights under time.

INSPECTION RULES

12. * All "T"s will be available for subsequent inspections at any time.
13. * All drivers and relief drivers must sign an Endurance Run Waiver and Inspection Form.
14. Cars must have four fenders, splash aprons, running-boards, and if so equipped: front splash apron, dash, and radiator shell, and all replacement body parts must be made of metal. All T's must be assembled from stock parts and/or reproduction parts equal to stock specifications, with the following exceptions:
15. Optional equipment must serve the original purpose and no other purpose.
16. * All competing cars must be equipped with two headlights and one or more rear stop and tail light in working order. The stop and tail light does not have to be a single unit. Turn signals are optional.
17. * Horn of any type in working order required.

18. * Rear view mirror of any type required.
19. * Emergency brakes must be in good working order.
20. Windshields must be stock for year of car. No altering. Must have safety sheet or safety plate glass top and bottom. Windshields to be completely closed and sealed by an inspector. Windshield wiper of any type is optional.
21. * All transmission bands must be in good working order.
22. * Complete set of floorboards required.
23. Body parts must be stock for year of car, sawed off tourings allowed.
24. * Padded seat and back rest of any type required.
25. Original turtle deck may be replaced by some type of substantially built box or turtle deck. Minimal length and width equal to size for stock turtle deck on that year of car, with floor, sideboards and end-gate. Sides and end no less than six (6) inches high from the floor and made of no smaller than 3/4" wood.
26. Rebuilt or new radiators allowed. Must be built to stock dimensions including tanks and side brackets.
27. Gas tank must be stock for that year of car and mounted in stock position. Gas strainers allowed. Fuel line not to exceed 3/8" I.D.
28. * At least 36 inches of 1 1/2" exhaust pipe required, properly attached to and extending from the exhaust manifold.
29. Only stock cast iron or aluminum intake manifolds with ports not to exceed 1 1/8" diameter are allowed. New manufactured manifolds with ports not to exceed 1 1/8" are allowed. No grinding or performance enhancing alterations of the intake or exhaust ports allowed.
30. Oiling system options: one outside oil line allowed. No modifications of the inside oiling system allowed. Transmission oil screen allowed. Grooving and drilling of the rod bearings and main bearings optional.
31. Only stock Ford roller type, New Day, Anderson flapper type timers or Crystal timers allowed. Ball or needle bearing rollers optional. Quick couplers NOT ALLOWED in timer wires. Internal timer material optional.
32. * Body must be painted, color optional.
33. Hoods are not required. Tops of open cars, use and type of muffler, and fans are optional. Non-Model T style and size tops not allowed.
34. Holes must be drilled through the heads of the following bolts for braided seal wire: two center head bolts, middle two small pan bolts, and a hole must be drilled through the threaded end of both bolts that fastens the carburetor to the intake manifold. Please paint the heads of the drilled bolts a contrasting color.
35. Only NH swayback or Ford "F" swayback carburetors allowed. Carburetor must be complete, including choke butterfly. The Association's 0.710" gauge MUST NOT go through the carburetor *from either side*.
36. Throat of carburetor may be smoothed as long as the Association's .710" gauge does not pass. No altering of the basic design of the carburetor allowed. must be complete including

all butterflies, adjusting needle, and stock spray needle. Choke and throttle rods must pass a visual inspection for stock uniform shaft dimensions with no obvious modifications. Butterflies must be original size.

37. No fuel additives are allowed. Cars must use straight automotive pump gas as fuel during the race time, starting with inspection and continuing until the end of the race.

38. Every year new lead inspection seals will be placed on each competing car.

39. Coil box material optional.

40. Engine splash pans are optional.

41. Original type hot air stove optional.

(Also see all other rules)

CHASSIS RULES

42. Chassis parts may be assembled from any year T parts.

43. Zerk fittings in place of oil and grease cups are optional.

44. Only Model "T" type wire, wooden spoke or disk wheels allowed. May use Model "A" 21" wire wheel or 30 by 3 1/2" wire wheels.

45. Only stock Model "T" or Ruckstell rear-ends and axles with:

- standard eleven tooth pinion
- forty tooth ring gear
- stock roller bearings
- Options: Bronze or roller thrust washers. Neoprene seals.
- Ruckstell rear-ends must be locked in high.

46. Bolts on wishbone at rear of pan must be safety wired. Front wishbone accessory braces on pre-1920 cars allowed. Use standard wishbone sizes.

47. Use and type of shock absorbers are optional.

48. Use stock configuration spring sets with a minimum of seven leaves per spring set.

49. External auxiliary accessory type brakes are not allowed.

50. Belly bands are allowed and if the motor mount breaks the car takes the standard penalty. The belly bands cannot be used for support at any time.

51. Accessory pan arms are not allowed except for as an emergency repair while under time.

52. Steering dampeners are not allowed.

(Also see Inspection Rules.)

ELECTRICAL AND BATTERY

53. Ignition battery must be 6 volt type.

54. Accessory battery charging devices must be disconnected.

55. Battery disconnect switches and fuses are allowed in the primary circuit, excluding the igni-

tion system.

56. Original type ignition switch required.

(Also see Inspection Rules.)

POWER UNIT RULES

57. Cylinder bore not to exceed 3.825" maximum or 3.750" minimum

58. Cast iron or aluminum pistons of stock Model "T" type required. Cast iron pistons must have a full set of .250" width rings in place. Aluminum pistons must have two (2) .125" width compression rings and one (1) 0.1875" width oil ring in place. Knurling of piston optional. Use of multi-piece rings optional.

59. There must be one stock piston, rod and cap assembly in the engine. Exceptions: Cap may be drilled for dipper, and grooved for oil. Choice of rod bolts and nuts optional. The other three (3) assemblies can be balanced to this one. Piston is not to exceed a height of .400" above the head gasket.

60. Rods must be Model "T" Ford script. Maximum center to center distance of 7.030" measured from center of rod journal to center of wrist-pin.

61. Any cast iron original Ford script head is allowed, but the combustion chamber is limited to 275cc minimum. *The head will be measured without the head gasket, without spark plugs, and the spark plugs holes will be plugged with clay to be flush. One stock combustion chamber is required, the other chambers to mimic the stock chamber. No material can be added to the combustion chamber to equalize.*

62. The crankshaft must be Model "T" Ford Script with a stock stroke. *Piston sweep must be four (4) inches + / - .030.* Chroming, hardening or grinding of journals allowed, not to exceed 1.250" maximum or 1.208" minimum diameter.

63. Counter-balanced crankshaft not allowed.

64. Valves: Stainless steel and swirl polished valves are optional. For all valves use a minimum stem diameter of 5/16", a maximum head diameter of 1.500" and seating face of 45 degrees. Use either pins or two-piece keepers. Hardened valve seats are optional. Radiused, 45 degree or three angle seat grinds allowable.

65. Use of offset key between crankshaft timing keyway and the crankshaft timing gear keyway is optional. Camshaft timing gear material optional. Camshaft gear may be drilled.

66. Any cam that doesn't require modification of the block may be used. Bearing bores must be standard size, no relieving of the bearing bores. Camshaft bearings and seal optional.

67. Type of fourth main is optional.

68. Type of band material optional.

69. Gauges are optional.

70. Design and use of water pump optional.

71. "V" type belt and pulleys optional.

72. Adjustable flat tappet lifters (push rods) of stock dimensions, stem oversize to 1/32" allowed.

- 73. Balancing of rotating parts is optional.
- 74. The use of neoprene seals is optional.
- 75. Only stock Model T Ford and Model A Ford valve springs are allowed.

BODY RULES

(See Inspection Rules.)

TEAR DOWN RULES

76. The top 3 cars will be torn down immediately following the last flag. Additional tear-downs will be put to a vote of the Endurance drivers. Endurance drivers will vote to accept or reject items of question.

77. The first, second and third place cars will be torn down by a panel of five inspectors appointed by the Board of Directors. None of the inspectors may be a driver of the car to be inspected. *The driver in the top position at tear down cannot be an inspector, but the next five place drivers are required to be inspectors for tear down.* a car is disqualified, the next place lower will be inspected, until three have been found qualified, as per rule #76. An inspector who is the driver of the car coming up for inspection due to disqualification of another car will be replaced by the directors with another inspector. All inspectors must vote. Any driver has the right to consult with an inspector on any issues concerning the cars. The five teardown inspectors have final say in what is brought to the vote of the drivers.

(Also see all other rules.)

TIMING RULES

- 78. * Each car will come to a complete stop before starting at the timer's direction.
- 79. Timing will begin as designated for each car whether or not the car is on the starting line. Starting times can be adjusted at the timer's discretion. If the timers recognize a beneficial savings in time, a lagging car may be sent out ahead of its designated time. Usually this will be discussed with the Directors ahead of time. Time will start for this car when it leaves the starting line.

PENALTY RULES

- 80. Removal of head or pan while at stop (not under time) or on tour day, if tour day occurs during the endurance run, will impose a time penalty of 1 hour. Report this infraction to the inspectors immediately. Removal of head or pan under time must be reported to the inspectors at the first opportunity for replacement of seal.
- 81. Changing the carburetor imposes a time penalty of 15 minutes. Report the infraction to an inspector immediately. Replacement carburetor must meet the requirements stated in the Inspection Rules.
- 82. Disabled cars will receive slow time for each leg not completed, plus a daily penalty of one hour. In addition, cars trailered in on the last day are not eligible for prize money or trophies.
- 83. Replacement of complete engine is cause for disqualification.
- 84. Placement position results for cars that do not complete the entire endurance run will be based on actual mileage completed.

Montana Cross Country T Assn.
7516 E. Mission Ave.
Spokane Valley, WA 99212