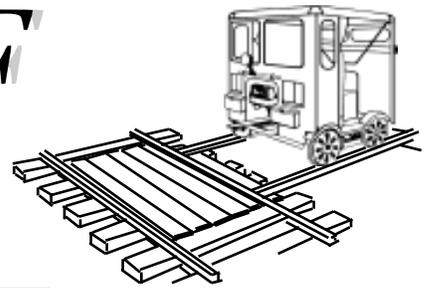


The *SETOFF*



THE OFFICIAL PUBLICATION OF THE NORTH AMERICAN
RAILCAR OPERATORS ASSOCIATION (NARCOA)

January/February 2006 Volume 20 - No. 1



*Halfmoon Trestle, Pacific Northwest (near Lewiston, ID)
Photo by Marg Hope*

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Please submit materials
for the Mar./Apr. issue of
The **SETOFF**
by February 15
as follows:

Classified Ads
Excursion Announcements
Letters to the Editor
All other materials
Photos

Charlene Morvay
17825 Route 8
Union City, PA 16438
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President's Message

Hoping you all had a very Merry Christmas and Happy New Year. Just a couple of months and some areas of the country will be firing up their motorcars and starting to break out of the winter blues.

Tom Norman has been doing some preliminary checking on insurance for 2006 and here are early results. As you know our current Liability Policy expires on April 30, 2006. At this point in time the insurer Admiral is willing to re-insure us for another year or for a 9 month period to permit us to get back on the February 1 - January 31 time schedule that is better for our purposes. We are not sure how this will affect the premium, but believe it will be somewhat comparable to 3/4 of last year's premium. The January 31 expiration date occurs at a better time for Tom to process the necessary paperwork and is in a very quiet time of year as far as number of motorcar runs being conducted. Look for more information to be provided regarding insurance in the next issue of *The SETOFF*.

To facilitate the Rulebook Certification process the expiration date of current Rulebook Certification was extended by the Board to April 30, 2006. We have included in this issue a copy of the new test that we are asking

you to take and mail to Mr. Al McCracken - 2916 Taper Ave - Santa Clara, CA 95051. Al will grade the tests and if you pass you will receive a new Rulebook Certification card and number. Remember you must have current Rulebook Certification and insurance to operate after May 1, 2006. Those that do not pass will be notified by Al and given another opportunity to take the test. Prior to taking the test may I suggest you read the entire Rulebook and re-acquaint yourself with the current rules in their entirety. The Rulebook can be downloaded from the NARCOA website

Yes, we will also make the Insurance and Rulebook test information available on the website.

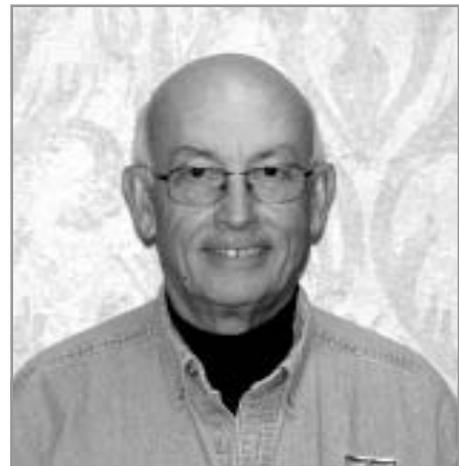
We had a very good sign up for the current insurance policy and continue to show growth in both membership and insured operators. It appears that the number of runs within the policy year will be about equal to 2004 and with a better safety record.

In this issue of *The SETOFF* Jim McKeel has written an article about the proposed rules that we invite you to comment on to your Area Representative. Some of you have made comments based upon your reading about them in the prior issue in the 2005

Annual Meeting Minutes. Those comments are being held to pass on to all directors at once and we will be discussing your comments.

Please notice the a format for listing excursions in *The SETOFF* and on the web site - www.narcoa.org/excursions.html. Starting in the last issue we began listing runs regardless of their area location in chronological order. This makes for faster posting on our web site and in *The SETOFF*. Also coordinators are welcome to submit listings to Charlene Morvay - setoff@juno.com or Keith Mackey - webmaster@narcoa.org. Please work to keep you listing brief, but sufficient to cover the topic. We are no longer using a set format for excursion listings. NARCOA Policy requires that all NARCOA insured runs be open to all NARCOA Insurance and Rulebook certified operators and that all runs be publicized in *The SETOFF* or if set up on short notice at www.narcoa.org.

New NARCOA Forum policy is being formulated and should be in place by the time you read this message. We invite all NARCOA members to join this forum. While *The SETOFF* remains our primary media for information dissemination; we will also use the NARCOA Forum to provide the same information in conjunction with publication of *The SETOFF*. The NARCOA Forum is a group on Yahoo.com. Go to <http://groups.yahoo.com/> to begin the sign up process. You will have to have a Yahoo email address to set up you membership. You do not have to use the email address other than to gain access to group. Best regards and safe running. - C. Patrick (Pat) Coleman, President, NARCOA





INSPECTION TOOLS

Wheel profiles are \$6.00 plus \$4.25 for shipping; wheel calipers are \$10.00 plus \$5.65 for shipping. You can purchase both for \$20.00 (includes shipping).

The wheel profile is necessary to determine whether the wheel is flat. Often the wheel is very thin in the flange area, and the profile will show that. It will show any wear that the wheel has between the flange and the flat section of the wheel.

The gauge is necessary to determine whether there is enough thickness in the flange area to give a safe ride. NARCOA rules say that you must have at least 1/8" throughout the wheel to have a safe wheel. However, this does not guarantee that you will not "hunt" on the rails if you have a wheel that is flat or has no profile.

To order these inspection tools, contact (**please make checks payable to NARCOA**):

Hank Brown
622 Oak Street
Cottage Grove WI 53527
Phone: (608) 839-4939

email: wildernesstours@charter.net

Submitting Materials for Publication

- 1 Materials received by the 15th of February, April, June, August, October or December will appear in the following two-month issue, subject to editing for space. Include email address or phone number.
- 2 Submit hard copy, photos or .jpeg images, clearly labeled as to subject and photographer.
- 3 Electronic submissions are preferred for text.
- 4 We cannot reprint copyrighted material without authorization. Include permission to reprint with all copyrighted materials.
- 5 Originals are archived, not returned.
- 6 Letters to the Editor must be signed and include email address or phone number for authentication. "Name withheld upon request" may be substituted when the letter is published. All such letters will be printed as discussed in the NARCOA policy book.

The SETOFF

Volume 20 Number 1

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The SETOFF is the official publication of the North American Railcar Operators Association (NARCOA) and is published bimonthly to promote safe operation of railroad motorcars, and to encourage fellowship and exchange of information among motorcar enthusiasts. Membership in NARCOA, which includes a subscription to *The SETOFF*, is \$24 per year and is available from Membership Secretary Joel Williams at the above address.

Visit NARCOA's Website at:
<http://www.narcoa.org>

Letters To The Editor



If you have a comment, suggestion, or complaint, send it to me at:

setoff@juno.com

Please put LETTERS in the subject line.

NOTE: Any views expressed or implied in this column are not those of the editor.

REMINDER: To submit photos and articles electronically, please reduce the size (from megabytes to no larger than 600 kilobytes). My old country phone lines will not handle big files.

ALTERNATIVE: Burn a CD and snail-mail to:

Charlene Morvay
17825 Route 8
Union City, PA 16438



Fellow operators, this could be a concern to you as it is to me. I have been on excursions where operators and coordinators have derailed and incidents occurred where they received no penalty. There have been incidents where cars were damaged, again no penalties. When these incidents happen, it is costly and can ruin your trip.

It appears we have double standards in reporting these incidents. I feel that any incident that happens to a licensed operator should be reported and they be held accountable. There are operators that are penalized to the max and possibly lose their privileges while other incidents get off Scot-free and it's just called it a "fender bender". Is this fair?

Please feel free to contact me with any questions or comments at lucyschaw@outrageous.net.

Have a safe New Year.

Larry Shaw

Board response follows:

Mr. Shaw as a NARCOA member is allowed and encouraged to report all incidents and accidents that he feels are not currently being reported. Normally these reports are made by the Excursion Coordinator of that event. If you are concerned that a report was not properly filed, contacting the Excursion Coordinator would be appropriate. If no report was filed, we would ask for you to review the current NARCOA Judicial Policy located on the NARCOA website at: <http://www.narcoa.org/docs/governance/2005-10-20%20JC%20Policy.pdf>. Attention is specifically called to first sentence of paragraph I.1.a "An INCIDENT is defined as any incident involving one or more NARCOA members that results in personal injury and/or property damage to a third party, host railroad or NARCOA member". If after this review you still feel a report should be filed we would ask you to contact Tom Norman, Insurance Committee Chair, and/or Mark Springer, Judicial Committee Chair. Your report will then be investigated and dealt with per the current NARCOA Judicial Committee Policy. Please note that these reviews are considered confidential and are not shared with individuals not directly involved in the incident or accident.



From The Director's Desk
Area 4 (KY, NC, SC, TN, VA, WV)

by Tom Falicon
Area 4 Director

Happy New Year to everyone out there in Area 4-land! Here's wishing that 2006 is the best year you ever spent on this planet!

Not a lot to report at this time of year. It's cold, it's dark but we can all take heart in the fact that spring will be here soon. It's never too early to plan your excursion wish list for 2006 and start assembling the parts, services and accessories you may need to make all those trips happen safely and breakdown-free. Winter is also a great time to roll the ol' trailer into the garage and give it the attention that is much needed after it gave you a good year of loyal service hauling your motorcar all over the country. One of the most important parts of your trailer is the link between it and your tow vehicle... the hitch. While giving your trailer a proper inspection take extra care to check the hitch for any worn parts and also your tow vehicle's hitch to make sure that nothing has worked loose over the year. Lube those wheel bearings, repair any other problem found and you'll be good to go come spring.

This year I had the forethought to do all my motorcar body part painting when it was warm in the fall. That way I can assemble all winter without being held up by unpainted parts. I have a few pieces of MOW equipment to rebuild that have not been painted so I'm wishing for at least one "freak" warm front to blow into Bryson City about mid February and I'll be ready with my spray gun!

As promised, I'm assembling the Area 4 members email list so I can contact you guys quickly with updates, info or questions. I've started by cross-referencing a master list of all Area 4 members against the Area 4 members email addresses that are listed on our NARCOA website as well as the addresses that are printed in the electronic Roster. Speaking of Rosters, I'm still trying to get some kind of positive answer as to whether we will ever have another printed roster or not. I know that many of you (including me) have asked for one and I am still trying my best to get you one. To get back to the Area 4 email list, by mid-January I will have emailed every Area 4 member whose email address I have. If you are an Area 4 member and you have not been contacted by me by email before the end of January and if you would like to be included on our Area 4 email "instant info" list just send me an email telling me that you would like to be part of the gang. My address is Raildawg@gte.net

If you have any other Area 4 news or info that you think would be important to NARCOA members please feel free to contact me at anytime.

Talk with you again guys.

Tom Falicon



New Area Insurance Rep Named

by Tom Norman, NARCOA Insurance Administrator

I'm pleased to announce that Tom Falicon has agreed to assume the position of NARCOA Area Insurance Representative for the southeastern United States. Tom is replacing Jack Whitt who is retiring from the position. I would like to thank Jack for his assistance over the previous eleven years. As an area insurance rep, Jack was responsible for providing Certificates of Permission to excursion coordinators in seven states in the southeast. When the excursion coordinator completed the Certificate of Permission and had secured the railroad official's signature, Jack would verify that all information was correct and then issue the Certificate of Insurance to the host railroad. Jack has agreed to stay on until December 31st and assist Tom Falicon. As of January 1st all excursion coordinators should contact Tom Falicon for Certificates of Permission and Insurance. Thanks again Jack for a superb job.

There are six area insurance reps that perform these duties. Besides Certificates of Permission and Insurance, they have insurance application forms, NARCOA Agreements and other insurance documents. They can help answer insurance questions and offer help with host railroad contacts. Also the area insurance reps are members of the NARCOA Insurance Committee.

Each area insurance rep is responsible for certain states and provinces. Excursion coordinators should contact the rep for the state or province that the excursion is in. This is not critical though, as any area rep can help you. If an area rep is on vacation or cannot be reached, it is perfectly acceptable to contact any other rep.

Current NARCOA Area Insurance Representatives:

Hank Brown, 622 Oak Street, Cottage Grove, WI 53527 Phone: (608) 839-4939
Illinois, Indiana, Iowa, Kentucky, Manitoba, Michigan, Minnesota, Ohio, Ontario, and Wisconsin

Jim McKeel, 9742 Yosemite Court, Wichita, KS 67215 Phone: (316) 721-4378
Arkansas, Kansas, Louisiana, Missouri, Nebraska, Oklahoma, and Texas

Tom Norman, 1047 Terrace View Drive, Alberton, MT 59820 Phone: (406) 722-3012
Alaska, Alberta, British Columbia, Idaho, Montana, North Dakota, Oregon, Saskatchewan, South Dakota, Washington, and Wyoming

Doug Stivers, 1544 Fuchsia Drive, San Jose, CA 95125 Phone: (408) 269-5547
Arizona, California, Colorado, Hawaii, Nevada, New Mexico, and Utah

Tom Falicon, 1227 Sawmill Creek Rd, Bryson City, NC 28713 Phone: (828) 488-8063
Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee

Dick Wilhelm, PO Box 209, Bearsville, NY 12409 Phone: (845) 679-2870
Connecticut, Delaware, Maine, Maryland, Massachusetts, Newfoundland, New Brunswick, New Hampshire, New Jersey, New York, Nova Scotia, Pennsylvania, Prince Edward Island, Rhode Island, Vermont, Virginia, and West Virginia



BOARD OF DIRECTORS NOMINATIONS OPEN FOR ODD-NUMBER AREA

Nominations for Board of Directors for odd-number areas are open until March 30, 2006. Incumbents are automatically nominated unless they decline to run for another term.

Area 1	Warren Riccitelli
Area 3	Bruce Carpenter
Area 5	Bobby Moreman
Area 7	Carl Schneider
Area 9	Mark Springer
Area 11	Pat Coleman

To be nominated, one must:

1. Be a member in good standing with NARCOA.
2. Be at least 18 years of age.
3. Be from the same area as the person nominating you.

To nominate a member for the Board, first contact that person and verify that they will be willing to serve. Then send a letter informing me of the nomination. Also at that time the nominee should send a write-up of 100 to 150 words about him/herself to be put on the ballot.

Voting will take place as in the past with all ballots received by July 31, 2006 being counted. Results will be announced in the September/October *SETOFF*.

Carl L. Anderson NARCOA
1330 Rosedale Lane
Hoffman Estates, IL 60195
Email: CA636@aol.com



Editorial Note

Last month the cover photo was incorrectly identified as Fabian Station, NH. I have been corrected by several of you who identified it as the Crawford Station, Crawford Notch, NH, on the former Maine Central (now operated by Conway Scenic Railroad).

When submitting photos, please be sure to include a photo caption at the same time. This will ensure publishing the correct information.

Gang Cars: Is Now The Time To Think BIG?

by Jim Spicer

While on excursions we are often asked about our A-4, Duke. Recently we are seeing more interest in gang cars. Hopefully this article will give you some useful information.

I would like to give you a little background on our gang car experience. In 1999 I had the opportunity to buy a Fairmont A-4-D from Longview Portland & Northern in Gardner, OR. We had a very nice Fairmont MT-14 that I had converted to dual gauge but at times we wished we had a larger car so we could take friends with us. After acquiring the A car, we only used the MT-14 for narrow gauge. Three years ago we decided we liked A-cars so well that I spent the winter rebuilding another A-4 from the ground up as a narrow gauge car. Since the summer of 2000 we have put over ten thousand miles on A-4s.

Several years ago I figured gang cars were the wave of the future for several reasons. At present there are quite a few available and not too expensive. However, as time goes by they are becoming more picked over. They have lots of room, you can take friends, or on long trips lots of baggage. I think the ride is better than smaller cars. However, the main reason I like them is that you have adequate power and gears. As all of you that have an MT know, with an Onan engine and two-speed transmission there are times when the train is moving at the wrong speed. Your engine is racing in low about to float the valves or lugging along in high with chain snatch. Fairmont gang cars have an industrial engine with a four-speed truck transmission. There is never a speed that is a problem; switch gears or adjust the throttle a bit and the car is happy.

There are some down sides to owning a gang car. Most of them are heavy and require a tow vehicle larger than most cars on the road today. For all but the lightest, a two-axle trailer is best. Both of these problems can be overcome but need consideration. If you have a pickup or access to one you are almost there. If you have time to shop around, two axle car haulers are available at reasonable prices.

Another problem that can be a challenge is turning a heavy car. You should be prepared to turn your car without asking for outside help. To ask for help lifting a heavy car will soon make you very unpopular. The best way is to have a turntable with a hydraulic lift. Fairmont did build a few A-4s with turntables but they are rare. You can have a custom one built, but they are not inexpensive. Fairmont built, and sold to railroads, a push on portable type that is available. These use two rails that look like skis. There are two centerpieces; one fits on the rails, the other one fits on top of it and turns. The rails fit on the ends of a top movable piece. After getting the rails adjusted so the car balances when on the portable turntable, it is fairly easy to push the car on and turn it. Another method is to have a hard point under the car where you can place a floor jack and lift the car by turning it on the jack head. Any of these methods will work but it is something you need to address.

Gang cars are larger and heavier so are ideal for towing. We tow the port-a-potty a lot. The good news is we know exactly where the potty is and can be first in line. In the past we towed a lot of disabled cars home. As motorcars become more reliable, this is becoming less common. An A-4 can tow an MT car and not even notice it is there. This makes for lots of friends by relieving a MT-19 from having to pull a MT-14. Gang cars came from a lot of different manufacturers; Fairmont, Northwestern, Kalamazoo and others built them. Today, Fairmont's are the only ones readily available. The smallest and lightest of the currently available cars is the A-3, a nice small car with a small Waukesha four cylinder L head engine.

The most popular and most available is the A-4-D. It came in several versions with three different Ford four cylinder engines. If you are going to own a gang car it will probably be an A-4-D. Most likely you will find one with either a 134 CID, OH Valve four cylinder that is commonly referred to as the Tractor Engine. Originally used in the 1953 Ford Golden Jubilee tractor, a very good strong engine, or the industrial version of the Pinto engine, a 2.3 Liter OHC is also a very good strong engine. Parts for both engines are readily available. The other engine is the English Cortina 1.8 Liter or 2.0 Liter OHV. It is rather uncommon but there are a few around.

The A-5 is the same basic car as the A-4 except it has a four-cylinder Waukesha L head engine. There are quite a few of these around and they are still reasonably inexpensive. The earlier versions of both A-4 and A-5 had non-synchromesh four speed truck transmissions. Later cars had synchromesh.

continued next page . . .

A-4s and 5s mostly came in two body styles, round roof and peaked roof. The round roof is almost always double ended with glass windshields on both ends. The peaked roof cars usually have a windshield on the front with an open back. There is also a desirable A-4-E that has a wide body; most have doors, very nice cars.

Next is the A-6; a very nice car with coil spring suspension, about 16 inches longer than the A-4. It's a little higher because of the suspension. They have a Ford Six with four-speed transmission. The down side is they weigh more. The one I have weighed 3600 Lb. as received from the railroad. There are a few of these around and the room and ride are worthwhile if you can deal with the size and weight.

There are also a few HUGE A-8s. These cars are rare and heavy; they will weigh nearly 6,000 Lb. The early version had a Ford V-8; later ones had a Ford Big Six with disc brakes.

After we got our first A-4, I took great interest in Fairmont A-cars and have looked at a lot of them very closely. The main thing I have noticed is that no two are exactly alike. If you look at a frame, you notice extra holes everywhere. The frame was predrilled so that any engine, transmission, wheel base combination would bolt right in. It was also predrilled for several gauges. Each car was a custom car built to the railroads specifications.

In summation: If you can deal with the weight and size, go for it. Even though we had a really nice MT-14, we find our A-4 much more enjoyable and do not plan to ever go back.

My next article will be an in-depth look at how to turn gang cars.



THE SAFETY COMMENT: WHEEL WEAR – A SAFETY ISSUE

by Bob Knight, Chairman, NARCOA Safety Committee and
Guest Author, Tom Norman, NARCOA Insurance Administrator

While surfing the Speeder Net a few months ago I found a great wheel wear commentary by Tom Norman (see reprint on page 12). After a few e-mails back and forth Tom has revised his comments concerning the Safety Issue of wheel wear for this issue's "Safety Comment." Trust you will find it of interest!

WHEEL WEAR . . . A SAFETY ISSUE

When I first started in this hobby in 1986, I started a logbook that recorded each excursion run, starting and ending points, and the miles run per day. I also recorded when I installed new wheels, brake shoes, etc. It has been helpful to me for identifying when I should expect things to wear out. Here is what I have for my history. The only one of my motorcars that I put significant miles on (i.e. more than 3,000 miles) is my MT19-B. Basically I can get about 9,000 to 10,000 miles on a set of brake shoes and 10,000 to 11,000 on a set of wheels.

I originally started operating the MT19-B in 1990. I put a new set of wheels on in 1996 and ran them until 4/20/01 for a total of 11,110 miles. At that time flange and tread wear were visible using a wheel caliper and the NARCOA wheel profile gauge. I replaced them with new Fairmont wheels. I had purchased a dozen new wheels from Fairmont in October 2000, for \$108.22 each, plus freight from Fairmont, MN. Those wheels were batch stamped, 0A0. I ran them until 10/31/05 for a total of 11,082 miles. I just ordered another dozen wheels from Fairmont in September, for the same price of \$108.22, but they were shipped from West Columbia, SC (no longer stocked in Fairmont, MN). This batch is stamped, 0F5. None of my wheel shows any foreign country origin.

Both sets of wheels were replaced when I started noticing hunting occurring. It started to appear around 9500 miles. Hunting is most noticeable on good tangent track at speeds above 25 MPH. The last set was fine when I began Southwest Railcar's Takla Sub excursion in August 2005, which was 950 miles on CN (formerly BC Rail) track. By the end I was noticing hunting on well-maintained tangent track.

This last set of wheels that I ran, I monitored wheel wear about every 2,500 to 3,000 miles. I actually rotated the wheels to try and maintain even wear on each wheel. When working on the MT19, I always adjusted the thrust collars to have equal wheel spacing from the frame side members and used a straight edge to check front axle to real axle alignment; also double checked axle spacing. It seems that even with the best alignment, the car would have a certain wheel that would wear more than the others. I would rotate the wheel with the most wear to the wheel with the least wear. When referring to wear, I'm talking about wheel thickness at the flange and tread. The difference in wear between the good and bad wheels was no more than 1/32" or 2/32".

When I replaced this last set of wheels, I had the following measurements. Using a wheel caliper, all wheel thickness was down to 1/4" from 5/16". Flange thickness on front wheels was slightly over 3/16". I like to use the NARCOA wheel profile gauge to check the profile. Using the wheel profile gauge, measure the gap between the worn thread and the profile. Mine measures 2/32" on all four wheels. The gap between the profile and the flange measures 6/32" on the right front, 5/32" left front, 4/32" on both right and left rear. Note that the wheel profile and caliper agree on the tread. Both indicate 1/16" wear. However on the flange wear, the caliper indicates about 2/32" less wear. It appears that the supposedly 5/16" wheel is thicker in the area of the flange (about 11/32" or so) as the wheel is formed. I'm not sure this happens as the wheel is made, but the new wheels callipered at this thickness. The caliper will show less wear, but the profile gauge will show more accurately the

continued next page . . .

true wear on the profile. So my suggestion is to replace wheels around 10,000 to 11,000 miles, when you start to experience hunting. Wear, using the NARCOA wheel profile will show 1/16" tread wear and 1/8" or more flange wear.

NARCOA wheel profiles are advertised in *The SETOFF* (see page 3) and can be ordered from Hank Brown. The wheel profile also has the gauge line scribed on it. By using two wheel profiles and a tape measure, you can measure your car's actual gauge. Fairmont currently recommends a tolerance of 1/8" to 1/4" under track gauge. I personally like to be closer to 1/4" under gauge.

The March/April 2001 issue of *The SETOFF* has a simplified wheel profile drawing of the Fairmont M11404K1 16"x5/16"x4 1/2" wheel. The main tread slope is 1 in 47, while the very edge of the wheel has a 1 in 20 slope. It also has photos of actual wheel sections showing new and worn wheels. When giving wheel wear measurements above, when I say the tread is worn 1/16" that means there is a concave wear area on the 1 in 47 slope portion of the tread. A straight edge on the slope area will show this dished shape. When it gets to 1/16" wear, then hunting is noticeable. Even if one drive wheel is worn 1/32" more than the other the wheels will still find a stable point on the tread that gives equal circumference on tangent track. Once wear gets around 1/16" each wheel will have two locations on the tread that are the same circumference and the car hunts between the two locations. It's easier to see when you look at the Fairmont drawing of the wheel profile on the next page. Also when I say that I swap worn wheel to good wheel, I have found that tread wear is usually uniform between all four. It's the flange wear that is different. One front wheel usually wears more than the other by the 1/32". I just try to balance the wear by rotating the wheels.

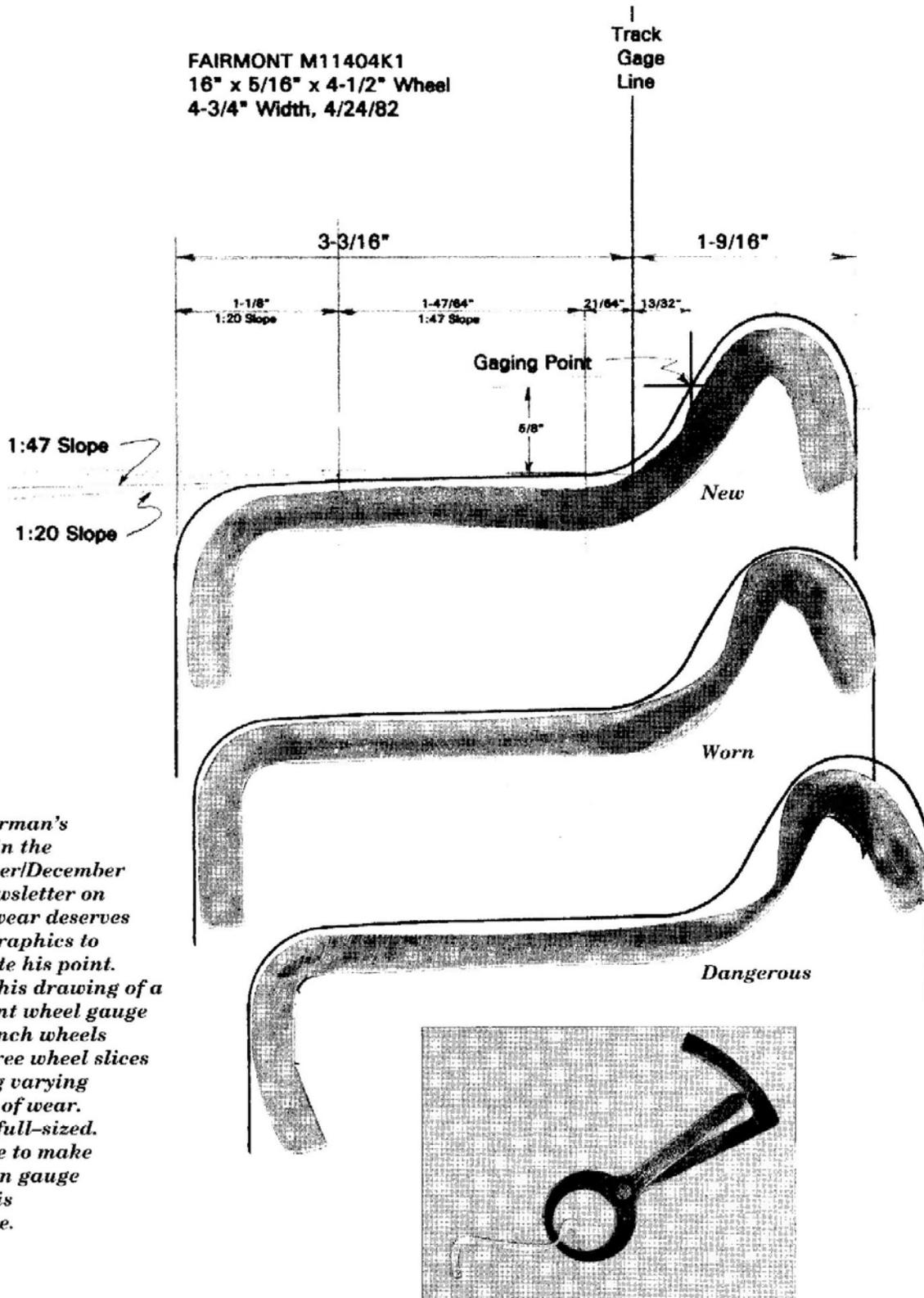
So in summary, when the tread and flange wear are worn as listed, or about 10,000 miles I replace. If an operator doesn't know the mileage of their wheels, but notices that the tread is dished in 1/16" or more on the drive wheels, that will be the reason for the hunting and should be replaced. Don't just check the tread for wear. Remember to replace wheels for flange wear too. Basically, I replace all four at one time. Also be very cautious while accelerating and braking until you have worn the paint off the new wheels. The motorcar will be very slippery and squirrely until the paint is worn off at about 100 miles or so.

Hope this helps and keep it safe on the rails.

Tom Norman, NARCOA Insurance Administrator

P.S. You veterans have now mentored 57 new and returning members this year.
Many thanks from your Safety Committee!!

Let's Do It Again



Tom Norman's article in the November/December 2000 newsletter on flange wear deserves better graphics to illustrate his point. Here is his drawing of a Fairmont wheel gauge for 16-inch wheels with three wheel slices showing varying degrees of wear. All are full-sized. Feel free to make your own gauge from this template.



Proposed Additions to Current NARCOA Rulebook

By Jim McKeel, Chair, Rules Committee

The NARCOA Board of Directors discussed possible additions and changes to the current NARCOA rulebook at the 2005 annual meeting. The board has proposed that two items be added to the rulebook.

It has been proposed that a sentence be added to the rule that addresses brakes (Section I, Rule #2). The sentence would be added to the end of the current rule and would read as follows:

“Brake liners (usually made of metal) shall be replaced once they have worn into the insulation block (usually made of wood).”

It has also been proposed that a clarification on the use of fasteners on axles and brake rigging should be included in the rulebook. The proposed rule would be added to Section I of the rulebook as Rule #20 and the current Rule #20 would become Rule #21. The proposed rule would read as follows:

“20. COTTER PINS. All nuts and pins on axles and brake rigging shall be secured by cotter pins that are similar to original equipment installed by the manufacturer. The pins shall be applied in such a manner as to not compromise the insulation properties designed into the motorcar.”

Please forward any comments you might have on the two proposed additions to the rulebook noted above to your Area Director within 30 days of the date of mailing of this newsletter. The Board of Directors will then take a final vote on whether to approve or not approve the addition of these rules with consideration given to comments that they have received.

The NARCOA Board of Directors also gave final approval to the two rules that were proposed for addition to the rulebook at the 2004 meeting. In accordance with NARCOA policy, a notice of the proposed rules was posted in *The SETOFF* to make the membership aware of them and to allow a thirty-day period for comments from the membership to their respective Area Director. After allowing more than sufficient time for member comment, the Board of Directors conducted a final vote on these proposed rules at the 2005 annual meeting and the rules were adopted with one minor change. A definition was added to the proposed rule on reverse movements as a result of comments received from members. The following new rules will be added to Section II of the rulebook and upon publication in this edition of the newsletter are now in effect:

“20. OPERATOR CERTIFICATION / INSURANCE. All persons operating a motorcar or hy-rail vehicle on any NARCOA insured excursion must have successfully completed the NARCOA rulebook examination and obtained a NARCOA Certificate of Examination, and must have current NARCOA liability insurance coverage through the NARCOA insurance program. All persons operating a motorcar or hy-rail vehicle on any NARCOA insured excursion must have a current Certificate of Examination card and a current NARCOA insurance card in his/her possession. (Exception: persons designated by the railroad on which the excursion is being run who are in the performance of their duties as railroad liaison/escort.)”

“21. REVERSE MOVEMENTS. Reverse movements are not permitted except as authorized by the Excursion Coordinator or his designee. (A reverse movement is any movement in the opposite direction of the direction that the excursion group as a whole is traveling.)”

The Board of Directors vote on whether or not to adopt the proposed new rules was as follows:

Area 1 - Warren Riccitelli	Yes	Area 7 - Carl Schneider	Yes
Area 2 - Joel Williams	Yes	Area 8 - Ken Annett	Yes
Area 3 - Bruce Carpenter	Yes	Area 9 - Mark Springer	Yes
Area 4 - Tom Falicon	Yes	Area 10 - Jim Spicer	Yes
Area 5 - Bobby Moreman	Not present	Area 11 - Pat Coleman	Yes
Area 6 - Hank Brown	Yes		

Thank you for your consideration of the need for our continued safe operation and the importance of exhibiting the fact that our number one priority is the safety of all participants as we plan and operate our excursions.



How Much Does It Cost To Operate Your Speeder?

by Roger Hoffman

The 2005 speeder season is rapidly drawing to a close and it seems like just a month ago when Tom Norman was assuring us that insurance would indeed be available. I sent in my \$120 check a day after finding out all was in place and I spent the rest of the year getting ready for and participating in 13 runs on 11 different railroads. Four of the runs were in my trusty CN MT-19A "Orange Pumpkin" and the rest were in my "new" CP A-4. Of the nine excursions in the A-4, five were public excursions, introducing over 200 folks to the railroad speeder hobby. Of the 13 runs, only three were NARCOA-sponsored. The rest were "museum-sponsored".

One of the things I did this year was keep a log of each trip, including road miles in the F-150, rail miles in the speeder, cost of gas, lodging, food, and etc. The data is interesting from a statistical point of view and I just wanted to share it with my fellow speederites.

I live 10 miles east of Dayton, Ohio and although there is plenty of rail traffic in and out of Dayton, there are no close railcar excursion locations. Of my 13 trips, the closest was a public ride weekend in Metamora Indiana, on the White Water Valley Railroad, 110 miles from my home. The furthest trip I made was to East Troy, Wisconsin for the Fall Festival public rides at the East Troy Electric Railroad. That trip was 526 miles one way.

All total, I drove my gas-hungry F-150 and speeder trailer a total of 6,195 miles for a mere 1,217 miles on the rail. This computes to a ratio of 5.1 "road" miles for every "rail" mile, a statistic that I find interesting for comparison purposes. For example, the excursion with the best ratio was the Latta Sub with a ratio of 2.1 road miles for every rail mile. The "worst" ratio was 13.6 road miles for every rail mile when I took the A-4 out for its first "formal" run at the Green County Depot Days public runs south of Madison, WI, in late April.

My F-150 averaged a lousy 10.3 mpg in 2005 pulling the A-4 over 4,365 miles of road. It averaged a much more respectable 13.2 mpg pulling the MT-19A over 1,830 miles of road.



Hotel costs for my 13 excursions cost me a total of \$813, and gas cost me a tidy \$1,285. Excursion fees totaled \$720 and miscellaneous and food costs ran a mere \$500. I paid \$433 into a special F-150 maintenance fund (7 cents per mile) bringing the cost of running my speeders in 2005 to \$3,751. Add in the now seemingly insignificant costs of insurance and NARCOA membership and I post a grand total operating fee for 2005 of \$3,891.

This works out to an average cost per rail mile of \$3.20. Compare that to my "most expensive" run on the Toledo, Lake Erie and Western of \$7.83 per rail mile (only 33 rail miles that day with a hotel stay that night - the wife liked the hotel more the rails!). The "least expensive" run was the White Water Valley Railroad public excursion at only \$1.19 per rail mile (75 rail miles and no hotel stay as it is "close" to home).

On a bulk cost basis, my run on the CP Latta Sub was the most expensive at \$539 (\$300 excursion fee, which did however, include one night of lodging). The least expensive was my participation in the North Vernon Railroad Days with Stan Conyer, costing only \$79 (no excursion fee, no hotel, fairly close to home, and early enough in the summer to enjoy relatively cheap gas).

Seeing how the funds are spent helps ascertain how to save some of those funds. The cost of gas was the driving factor in my 2005 season's costs. I could have saved by towing and using the MT-19A in place of the A-4, but that would have hampered the public ride sessions that I find so enjoyable. I could have gone on runs closer to home, but that would have ruled out the West Virginia Central and the two public runs in Wisconsin. The next largest factor is hotel costs. Getting up really early for "local" runs might have helped in two runs, but I don't like getting up that early! Roughing it (in the back of the truck) could have been a reduction factor in at least two runs. And staying in cheaper hotels (i.e., those without pools and continental breakfasts) would also certainly have helped, but to the chagrin of my son, who enjoys both of those amenities. Food costs could have been minimized with picnic food versus fast food joints, but that requires advance planning and dragging coolers and ice around, unless you happen to be within a few cars of the Riccitelli Deli! Excursions fees aren't very negotiable, but since I only ran in three NARCOA-sponsored runs, they didn't amount to much in terms of over-all expense.

None of the dollar figures shown above include railcar purchase and/or maintenance costs, as those costs would probably be incurred even if the cars weren't run.

2005 was my first full year in the speeder hobby and, yes, I may have gotten carried away with 13 runs that took me thru six states and along 4,300 miles of highway. However, it was a very enjoyable year for me as I met some really cool fellow speeder operators and some are becoming fast friends. As a result, the cost incurred has been well worth it. 2006 may shape up a little differently due to different calendar conflicts, different railroad opportunities, and different gas prices. But I'll be out there, somewhere, looking up newly made friends and trying to add more names to my growing list of speeder buddies.

Roger J. Hoffman, Ohio
CN MT-19A, 134-64
CP A-4, 4700-84



How To Prepare Your Motorcar For A Long Trip

by Keith Mackey, Webmaster

Most of us began the hobby by making one day runs in our local areas. These short runs gave us an opportunity to try out our motorcars without worrying much about the consequences of a breakdown. After all, we're close to home, and if we or someone else can't fix it on the spot, it's easy to get a tow to the setoff. We'll have lots of time until the next run to fix the car. Most operators aspire to make the longer, more exotic runs in Canada, Mexico, or remote portions of the USA. A ten-day, 2,000-mile run is expensive. So is travel to and from the run. On many of these runs, we are away from our tow vehicle for the entire event and must be self-contained in our motorcars. A breakdown on a long run that cannot be easily fixed can turn the trip from a fun packed adventure to a disaster. Many railroads and excursion coordinators will set off a car with problems that can't be repaired, possibly in a remote location that is not secure and difficult to reach with a tow vehicle.

The philosophy of waiting until something breaks before fixing it has never worked out well because it isn't a question of **if** your motorcar will break down, only **when** it will break down. The answer is "preventive maintenance" - determining what component is likely to fail and at what interval and then fixing it before it breaks. This is the key to reliability. As an excursion coordinator, I place some operators into one of two categories: Those that are part of the problem and those that are part of the solution. Most "problem" operators feel that since their motorcar has performed well in the past, it will continue to do so. They generally have little mechanical ability and/or do not carry sufficient spare parts. When their car breaks down, they are generally unable to troubleshoot or repair the problem. They immediately become dependent on the "solution operators". The "solution operators" are easy to recognize. They are the ones who have motorcars that are extremely reliable because they have been properly maintained and almost never break down. A true "solution operator" is willing to share his knowledge and sometimes even his spare parts to rescue an operator that has joined the "problem" list. We have a great bunch of folks in our hobby, many of whom are capable and willing to help with a problem, but no one goes on a long run with the desire to spend their sight-seeing time fixing your motorcar or towing you for long distances because you were unprepared for the trip.

A long trip requires the capability of dealing with whatever mechanical emergency occurs. We do this on several levels. We properly perform preventive maintenance to be sure that everything likely to fail has been replaced or repaired before beginning the trip. We carry sufficient spare parts to be able to replace the high failure rate components, or those that fail suddenly and without warning. We carry the proper tools to perform these repairs and we acquire the mechanical skills to be able to identify, diagnose and repair these problems. If we can't fix the problem ourselves, we carry a good mechanic as a passenger or travel with another operator who has agreed in advance to solve our problems. The less mechanical skill an operator has, the more important it becomes that his motorcar be properly prepared prior to setting on the rails.

I'm sure I've gotten your attention by now. It isn't my purpose to scare you away from making the longer trips, but only to warn you of the problems you will encounter if you're not properly prepared. Proper preparation really isn't as difficult as it sounds. It is not expensive compared to the cost of the trip and can be lots of fun. Probably 95% of motorcar mechanical problems either will not occur or can easily be fixed on a long trip if we properly prepare. Let's examine the most common problems and their solutions. Since most cars are Onan CCKB powered Fairmonts, we'll deal with them specifically, but the same problems can occur with others.

1. Carburetor Ice

Cause: Outside air temperature 75°F. or below with precipitation, fog or even high humidity. The air entering the carburetor passes through a venturi which accelerates the speed of the air lowering the pressure which results in a temperature drop of as much as 40°F. This temperature drop together with the high humidity causes ice to form in the venturi restricting the flow of air.

Symptom: The engine seems to lose power. The throttle must be opened further and further to maintain speed. Under severe conditions, the engine can stop. The ice may cause the spark plugs to foul. Almost always, the right plug fouls first. (Possibly due to the less efficient design of the exhaust piping on the right cylinder as opposed to the left.) After the car stops, you can quickly slap each exhaust pipe (be careful not to burn your fingers) If the right plug is fouled, there will be a noticeable difference in temperature between the two header pipes. If the right plug is fouled, I change both with new properly gapped plugs (CCKB plug gap is 0.025") and don't save the old ones. They are cheap enough and a new one will produce known results. Carb Ice is not the only thing that can foul a plug (improper fuel mixture, bad rings, low compression, ignition problems, etc.), but in my opinion, is the most often misdiagnosed cause of plug fouling.

Fix: A few MT14's, particularly Canadian cars had a full time carburetor heater. The rest do not. Fairmont supplied a piece of canvas that was to be placed over the engine air intake grill on the front of the car. The theory was that this caused the inlet air to pass over the cylinders and exhaust before reaching the carb and helped to prevent ice by raising the inlet air temperature. Over the years, the canvas for most cars has been lost. I carry a piece of cardboard that I have cut to fit. When it's cool and damp, I just fasten it over the inlet grill and have no ice problems. In my opinion, carb ice is the most common and misunderstood causes of breakdowns and can easily be prevented with no expense or mechanical skill required. Just carry canvas or cardboard that can be used as an air deflector and use it during icing conditions.

2. Contaminated Fuel

Cause: The fuel supply to the carburetor has become contaminated from either the external fuel supply (very rare - filter fuel with a chamois if in doubt) or from the motorcar fuel system itself. The most common source of contamination is the fuel tank. The steel Fairmont tank is at least 30 years old, and has probably been stored for much of its life partially filled with old fuel. A partially filled tank causes condensation which rusts the steel and the old fuel turns to varnish which further messes the tank up.

Fix: The best solution is to replace the tank with a freshly manufactured stainless-steel tank, powder coated, painted red, available from motorcar parts after-market sources. These tanks are almost exact duplicates of the original and can be replaced in well under an hour. The second best solution would be to remove the tank, partially fill it with chain or clean pebbles and vigorously shake it until the inside again looks shiny. This is a temporary fix at best, as you still have a steel tank which will easily rust. If the tank has ever been coated on the inside with a "protective" solution, I would throw the tank away as the coating will in time flake off and cause real problems. Stainless is the way to go. If you do nothing else, a new tank is the single most important thing to keep contamination out of the fuel system. If you don't replace the tank, the tiny bits of rust and dirt will damage any other components downstream. Might as well upgrade the 4.5 gallon tank to a 6 gallon for a few bucks more if you have sufficient space.

While you're at it, replace (or install if you don't have one) the glass filter bowl that threads into the tank and connects to the fuel line. The car was designed to use this bowl as the only fuel filter in the system. Do not use in-line fuel filters as they are designed to have pressurized fuel flow not gravity flow. At 6,000 feet on a hot day, you can have a problem with an in-line filter. The in-line filters will not remove water, and contamination in them can be difficult to see. If the tank is clean, no extra filtering is needed. The fuel bowls can be ordered with the tank or are available from NAPA. Get a spare glass bowl, screen and gasket in case you break or lose these. I also carry a 90° fitting that threads into the tank and connects to the fuel line. In an emergency I can use this to eliminate the bowl completely if it is damaged. Make sure you have a functioning vented fuel cap. Locking vented caps are available. Order with the tank or buy from NAPA.

If you pass by a small airport, pick up a 1/8" npt fuel quick drain. Thread this into the second fitting on the bottom of the tank so you can drain any condensation on a daily basis. Replace the fuel line between the tank and the pump. Old rubber fuel lines deteriorate and can clog the pump or carb. Fuel hose is cheap and can be purchased at NAPA. Be sure the fuel line has a gradual uphill slope from the filter bowl to the pump with no dips or unnecessary curves. Plan on replacing the hose at five-year intervals. Be careful to keep the fuel line away from anything hot.

The next item in the fuel system is the engine driven pump. We just barely need a pump to provide fuel flow. If the tank were only a few inches higher and we never ran up hill, we could throw it away. Unfortunately, this is not the case. The Onan pump is very reliable. Overhaul kits are available from Onan and are inexpensive. The pump can be overhauled on the kitchen table, but can't be easily repaired during a run. The best solution may be to replace the original mechanical pump with an electric pump. You can remove the mechanical pump and blank off the mounting pad. Be careful as many electric pumps put out way too much pressure and need a pressure reducer. A few pounds of pressure is all that is required. More pressure can cause the carburetor not to function properly. These pumps are available at any auto parts store. Consider buying two (one as a spare) and configuring them with quick electrical disconnects and the same hose fittings so that they can be changed quickly. Install the pump in an easy to reach location like on top of the transmission cover. Trouble-shooting is easier with an electric pump if the output hose can be quickly disconnected to verify a steady stream of fuel. This eliminates the problem coming from everything upstream of the pump. The downside of an electric pump could be an alternator failure. If you shut off everything electrical except the ignition, the car will run a long time on the battery. It won't run as far if the battery is used to operate a fuel pump as well.

continued next page . . .

How To Prepare Your Motorcar For A Long Trip ... cont'd.

Last in line is the carburetor. It is a Zenith # 013262. Next to the tank, this causes the most fuel problems. Most CCKB carbs are worn out. The available overhaul kit does not contain all the parts needed to properly complete the repair. New carbs from Onan are very expensive, but the identical carb is available at a much lower price from Les King (who also has stainless tanks). Replacing the carb will probably do more for the proper operation of the CCKB than anything else. If your car is running fine and you are planning a long trip, replace the carb and carry the old one as a spare. The new one will last many years and, together with the stainless tank, will eliminate many problems. Replace the carburetor air filter. Do this at the beginning of each season.

Okay, so if you've followed all the recommendations listed above, you've replaced the entire fuel system with new and improved components that should last for many years and have a spare carburetor, fuel pump, fuel bowl and fuel line in your parts kit. To keep the fuel system in new condition, do the following:

- At the last refueling on each run, add a fuel stabilizer (my favorite is called Sea Foam) to the fuel to prevent the formation of varnish and keep the fuel usable for several months.
- After completion of the run, shut off the valve on the fuel bowl and run the carburetor out of fuel. This will also help to prevent varnish formation.
- Keep contamination out of the system by refueling through a funnel with a paint filter or chamois placed inside. It is much better to catch dirt in this manner before it enters the fuel system. Be aware of any red plastic you may find in the paint filter. Old plastic fuel cans deteriorate and new ones can have trash from the molding process inside.
- At the end of the season, either fill the tank with fuel that has been stabilized or drain the tank. Be sure to run the fuel out of the carburetor first. If I've filled the tank, I drain it and replace with fresh fuel at the beginning of the new season. I add the drained, stabilized fuel to my truck gas tank a couple of gallons at time when the tank is more than half full.

3. Ignition Problems

Cause: It can be difficult to quickly determine if a malfunctioning engine has a fuel or ignition problem. One "trick" that is not completely reliable, but may give the answer is when an Onan CCKB begins to run rough or loose power, pull the choke out a little. If this helps, it is probably a fuel problem, if not, it is usually ignition. An ignition problem is caused by a lack of electricity or a failed or misadjusted component. I carry an ignition test lead that can be connected between the plug wire and the spark plug in a few seconds. It has a neon light which illuminates if high voltage is present. The engine will run with the tester installed, so a quick determination can be made as to the presence of a spark. These can be obtained at any small engine shop for less than \$10.

Fix: Let's do as we have done with the fuel system. We'll replace the entire system and assemble sufficient spares to correct common failures. We'll start by replacing the wiring between the battery and the ignition switch. We will need #10 wire, a good wire stripper and terminal crimper with the proper terminals for the wire size. To be sure we have a good connection, we can solder the wire to the crimp-on terminal to delay the effects of corrosion. We'll replace the wiring from the battery to the ignition switch and from the switch to the ignition coil and from the coil to the points box.

The ignition switch can cause hard to diagnose problems. They seldom fail completely, but usually only when moving when the heat and vibration makes them occasionally fail intermittently. Replace the switch with a 75 amp push-pull switch available from the usual suspects. The kind found in most auto stores are cheap, low capacity and failure prone. Carry several small jumper wires with alligator clips on both ends (available at Radio Shack) to bypass any suspected bad wiring or switches.

Next in line is the coil. Most CCKB's came with a can shaped 12 volt coil. Some have a square 6 volt coil that is matched with a voltage dropping resistor. I prefer the "can" style as there is only one component to fail instead of a resistor or a coil. If yours is working fine, great! Remove it, carry it as a spare and install one of the new Onan coils which are smaller and coated in black plastic. While you're at it, order new plug wires from Onan. They are the proper lengths for the engine and use the proper wire. Carry the old wires in the spare kit.

I replace my plugs once a year and carry six spare plugs. There are many opinions on which is the best spark plug. I have had good luck with Autolight 216's in CCKB's.

Let's open the points box and look inside with the engine running. If the engine is running well, note how the spark across the points looks. Remember this for times when the engine isn't running well. If the spark is

different then you probably have an ignition problem. The inside of the points box should be very clean. If you find oil, you have a problem with the seal on the plunger that operates the points. The gasket on the cover should be in good shape to keep dust and moisture out. If the points and condenser have not been replaced recently, go ahead and change them both. Change them at the beginning of each season and learn how to replace and gap the points (CCKB point gap .020) yourself when not under the pressure of a breakdown. Don't forget to put a drop of oil on pivot point. It can be tedious and it is easy to drop the small screws, but with a little practice, it's easy. Carry a spare set of points and a spare condenser. Always replace them as a pair. Obtain and carry a copy of the engine service (p/n 927-0754) and parts (p/n 927-0404) manuals. Take the time to read them and understand the procedures and specifications for setting the point and plug gaps and ignition timing.

If you've done all of the above, you have a new ignition system and are carrying spare plugs, points, condenser, coil, plug wires and jumper wires. You have a complete spare system.

4. High Oil Consumption/Low Compression

Cause: Your engine needs an overhaul. The "core" engine itself is unlikely to fail completely but as it wears out, the rate of oil consumption will increase and the compression will decrease. This is true for any engine not just those used in motorcars. An engine failure is not a likely cause of a breakdown, but the compression should be taken and recorded annually to measure any decrease. The time to discover poor compression is before you buy the car.

Fix: The CCKB compression at sea level should be 100 - 120 psi. It is easy to check using a compression gauge available at any auto parts store. Be sure the engine is warm before checking compression. If your compression is down, you may want to consider a "top" overhaul which consists of overhauling the cylinders and rods only. Usually an engine will be able to be "topped" at least once and maybe twice before a complete overhaul is required. When you open the engine crankcase by removing the oil pan to begin the top overhaul, you can look at the rod bearings and measure crankshaft wear. If the crankshaft is worn out of limits, it may be time to consider another CCKB or changing to a Briggs or Honda. Since the CCKB has no oil filter, it is advisable to change the oil every 300 to 400 miles of operation. You can't change the oil too often. While Onan does not give specs for oil consumption, you probably should not be adding more than a quart between oil changes. If your engine has blue exhaust smoke, you probably have high oil consumption. Changing the oil and air filter frequently will do more for long engine life than anything else.

If you've never done so, it would be a good idea to check the intake and exhaust valve clearance. Wouldn't hurt to recheck it annually. CCKB Valve Tappet Clearance is: Exhaust 0.015" to 0.017" - Intake 0.006" to 0.008". Be sure and clean the steel mesh breather filter once a year.

5. Clutch Rod Failure

Symptom: You push in your MT19 clutch pedal to change gears and nothing happens. Next to a rear axle failure, the MT19 clutch rod is probably the "most likely to fail" part on the car.

Fix: If your clutch rod has not failed yet, it probably will. Carry a spare. They are available from Les King. Other than the clutch rod problem, the transmission system is very reliable and not field repairable. Be sure it is serviced properly with 140 weight oil. Keep the oil level up and watch for leaks.

6. Chain Failure

Symptom: Your moving along well when suddenly the engine speeds up and the car slows down. Takes a little while, but pretty soon you realize what has happened. Everyone behind you stops and finally finds your chain in the ballast. If you have spare links, maybe you can fix it.

Fix: Carry a spare chain of the proper length for your car. This is particularly important if you have a Canadian car with dual #40 chain. You won't find this in the hardware store. Carry master links and half links for your chain type. Learn how to install and adjust your chain. It's a dirty job at best. Check chain tension frequently and adjust as needed. Make sure the nylon whip blocks are properly installed. Oil the chain daily on the inside of its run - not on the outside where it is easy to reach. Consider using a much heavier motorcycle O-ring chain. It is much stronger than the standard chain and can be lubricated with the "no sling" O-ring spray-on oil to help keep the engine tunnel clean. Because it is an O-ring chain, it can be lubricated on the outside of its run as it passes over the rear sprocket.

How To Prepare Your Motorcar For A Long Trip ... cont'd.

7. MT19 Rear Axle Failure:

Symptom: You're enjoying the scenery when you notice the car is riding differently. It seems less stable. The car behind calls on the radio to advise that your rear axle seems to be sagging. You stop and find the rear axle has broken at the keyway. You are in the middle of nowhere and must be set off on a small dirt road miles from your tow car because your motorcar can't be safely towed with a broken axle. You get to finish the trip in the bed of the RR's hy-rail amongst the spare fuel cans, spikes and tie plates where you have plenty of time to plan a way to retrieve your motorcar.

Fix: Don't even think of taking an MT19 on a long trip (or even a short one where you can't easily recover your car from any point) without being sure that it has either the second idler sprocket modification or the keyless axle and sprocket modifications. Better yet, both of them. They have been described in "The Setoff" in a number of articles. I am unaware of any MT19 having a rear axle failure after these modifications. If you don't have the mods, you will eventually break the axle because of the laws of physics working on a poor design. "Nuff said - get the mod done.

8. Worn out wheels:

Symptom: Beautiful day, high speed run on tangent (straight as an arrow) welded rail, concrete ties. Problem is your car is suddenly "hunting" (slapping back and forth between the rails). You can't understand what is wrong. This has never happened before even on much worse track. Your wife says the motion is making her sick so you slow down to try and get a better ride. Now there's a big gap ahead of you and the cars behind are upset because your only doing 20 m.p.h. and have 150 miles to go. The EC is upset and wants the gap closed. What to do?

Cause: Your wheels are worn out and/or out of gauge.

Fix: Your wheels can be well within NARCOA limits and still be worn enough to cause hunting particularly on high speed track that may be slightly over gauge because of the RR's engineering policies. Obtain wheel profile gauges from Hank Brown's ad in "The Setoff". Check the profile of your wheels for wear. The wheel profile also has the gauge line scribed on it. By using the two wheel profiles and a tape measure, you can measure your car's actual gauge. Alternatively, measure through the triangular holes in each wheel from the outside face of one wheel to the face of the opposite wheel. It should be 62 3/4" if it is at track gauge. Fairmont recommends a tolerance of 1/8" to 1/4" under track gauge. If your gauge is correct and wheel profiles are good, you should not have a hunting problem. If you are under gauge, you can shim the wheels using 1/8" or 1/16" spacers from Les King. Do not shim one side only - keep the shims equal on each side. If you are over gauge, you'll have to remove the wheels and hubs to ream the insulating cones. You'll need some expert help doing this. A new set of wheels (and brake shoes) is good for about 10,000 miles. If you've got a lot of wear, replace wheels before a long trip. They are available from Harsco (Fairmont) for \$108 each plus shipping. If you're only buying two, put them on the solid rear axle so you have wheels of exactly equal diameter. The split front axle can tolerate slightly different wheel diameters caused by wear.

9. Other potential problems and solutions :

A. Lubrication: It's important to grease your car on a regular basis. To facilitate lubrication, many owners have routed flexible rubber grease gun hoses from the idler sprocket, wheel and center rear axle bearings to the outside frame of the car. In this way, they can be easily greased with a small grease gun without going under the car. The idler sprocket should be greased daily since it turns faster than any of the other bearings. The wheel and center axle bearing should be purged of grease and water anytime they are submerged or have a high pressure stream of water directed at them. There are grease fittings on the MT19 clutch linkage and the brake rod assembly. Be sure and frequently grease the fitting on the collar of the front split axle. Don't forget the daily chain lubrication.

B. Loose hardware: On your annual inspection check and if possible, properly torque every nut and bolt on the car.

C. Electrical failure: I replace my battery every three years with a new one from Walmart or NAPA because they are everywhere and can quickly replace a bad battery under warranty. Select one that requires no service and mounts in a manner that prevents the fuel tank or other structure from contacting the terminals in the event of a collision. I installed a heavy duty battery switch in the ground wire that is easily accessible from the

rear of the car. Many circuits are not fused. Electrical smoke coming from a motorcar is not good and means at least a fried component or even a fire. With the master switch, the entire electrical system can be down powered while the trouble is located. Turn it off when leaving the car overnight to keep things left on from discharging the battery. I have installed the "one wire" alternator because it is easy to troubleshoot as it does not require a separate voltage regulator circuit. With the engine running, check the voltage at the battery. It should be 13 to 14 volts if the alternator is working. If less, the alternator has probably failed. A set of motorcycle jumper cables are light and easy to carry. In the event of an alternator failure, the battery can be charged from the car ahead or behind while stopped. If you'll be doing a lot of night or tunnel running, consider a spare headlight bulb. Carry a spare alternator belt.

D. Communications: On many long trips, a two-way radio is required that is capable of operating on at least the NARCOA frequency. Mount a good antenna outside the car and use an intercom with headsets to cut down on the fatiguing noise levels and aid in communications.

E. Closed cab cars: It is a matter of personal preference, but for a long trip, I prefer a closed cab car to protect against bad weather and be lockable at night. Petty thieves find it easier to steal from the open cars. Some rugged outdoor types don't even like curtains on their open cars, so it's up to you, but it deserved being called to your attention if you plan a long trip.

F. Modifications: Many owners have "improved" their cars by adding luggage racks, protection bars, rewired electrical systems or other things that make the car hard to work on and can cause real problems during a breakdown. Try and keep everything at least as accessible as originally designed. If something major has been highly modified, you'd better understand how it works because no one else will know.

If you want to make a modification that really helps, replace the two 1/4" bolts that secure the "hood" to the front of your car with plastic knobs on a 1/4 - 20 thread available at your local hardware store. These can be removed by hand without using a wrench. This will make engine access much faster.

G. Unusual cars: An "Unusual car" would be a homemade car, or something like a Beaver Car, Portec, Tamper, etc. Unless you are an excellent mechanic with knowledge, sufficient spares, tools and enough experience with your car to know that it is capable of performing under conditions to be encountered, it is best to stick with an MT14 or 19 type of car on a long trip, especially if you're new to the hobby, because you will probably be completely on your own with anything that is not familiar to the "solution" operators on the trip.

H. Everything else: You can never be completely immune from a breakdown. Although we've covered the common failures in this article, unforeseen things can happen. If you follow the suggestions included herein, you've probably insulated yourself from more than 90% of the common potential failures and have certainly taken due diligence to insure successful trips.

The suggestions made are based on my personal experiences on long trips noting the causes of breakdowns. These experiences have formed the basis for my opinions. Since there are no shortage of opinions in our hobby, I'm sure others may have differing ideas. Just be sure anyone offering advice has the knowledge and experience to provide accurate information.



CALENDAR PICTURE NOTE

Please send all photos (50K or less in size) for the 2007 calendar directly to
Keith Mackey, Webmaster
webmaster@narcoa.org

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CUSTOM-BUILT & HIGHLY- MODIFIED
MOTORCAR GUIDELINES



VERSION 1.5 ◆ February 2005

INTRODUCTION and INTENT -

This handbook was developed to create a set of guidelines that provides inspectors, excursion coordinators and custom motorcar builders a common reference source that will aid in building and inspecting custom built or highly modified factory-built motorcars. It is not the intention of this handbook to aid in the prohibition or banning of motorcars from NARCOA insured excursions. It was developed to help assure that motorcars which are custom built or highly modified are done so in a proper and safe manner and that they can operate safely along with factory built motorcars.

SCOPE -

These guidelines have been written to apply to all existing custom-build or highly modified factory-built motorcars and to all vehicles that are being custom-built or highly modified at the present time or in the future.

DESCRIPTIONS -

CUSTOM-BUILT MOTORCARS CAN BE DESCRIBED AS FOLLOWS:

A motorcar that has not been built by a commercial motorcar manufacturer whose vehicles have been proven in a professional railroad or motorcar hobby environments. Or, a motorcar that has been built using technology other than that used in the manufacture of factory-built motorcars. Or, a motorcar that has been built by an individual from the frame up. In most cases one or more of the following items may be other than standard factory-built motorcar components or designs: the frame, engine, transmission, drivetrain, braking system or a radical new design in body style.

HIGHLY MODIFIED FACTORY-BUILT MOTORCAR CAN BE DESCRIBED AS FOLLOWS:

Any factory-built motorcar that has had one or more of the following modification performed to it:

- a] An engine has been installed that is physically much larger or much smaller in size and/or weight when compared to the standard engine for a factory-built motorcar of it's same size and weight class.
- b] A different engine has been installed that is 15 horsepower or more or 10 horsepower or less than the standard engine it replaced. Or, for heavy weight motorcars (Fairmont "A" type cars), when the replacement engine horsepower has been increased by 15 horsepower or more.
- c] The factory installed power source (engine) has been removed and replaced with something other than a conventional internal combustion engine.
- d] The frame has been replaced with a frame of an unconventional design, Or, the frame has been shortened, lengthened, raised or lowered radically for it's standard factory dimensions.
- e] Radical modifications have put the motorcar into a weight and size class other than it's original size and class.
- f] The drivetrain has been radically changed to an unconventional type of drive system.

MECHANICAL STANDARDS-

In addition to meeting all of the "NARCOA MECHANICAL STANDARDS" that are printed in the latest version of the NARCOA BOOK of RULES, a custom-built or highly modified factory-built motorcar should meet the following criteria:

- a) **APPEARANCE** - Overall size, proportion, seating and appearance of the vehicle should be comparable to that of a factory-built motorcar of comparable size and weight.
- b) **AXLES** - Axles should be aligned to insure that they are parallel with each other and not skewed. Axles should be set to proper gauge. Hubs and axles should run true without wobble or vibration.
- c) **AXLES** - Except on four wheel drive cars, the front axle should be a differential type. The differential sleeve or bearing should be equipped with a grease fitting to allow for proper lubrication.
- d) **BATTERY** - Battery(s) should be mounted in a secure fashion in a way that also helps prevent damage or problems caused by vibration.
- e) **BRAKES** - The vehicle's braking system should be cable of operating equivalent to, or exceeding the performance of a factory-built motorcar braking system of the same size and weight class.
- f) **CONTROLS** - All controls should be solidly mounted, clearly labeled, easily accessible and not positioned in a way that interferes with the operator's visibility.
- g) **DRIVETRAIN** - The drivetrain should be readily capable of being shifted into neutral and be able to be towed forward or reverse at a safe speed.
- h) **ENGINE** - The vehicle's engine should be an appropriate size, with and horsepower for the vehicle's size and weight class. The engine should be mounted in a location that provides proper weight distribution. The weight ratio should be similar to that of a factory built vehicle that is in the same size and weight class.
- i) **EXHAUST SYSTEM** - The vehicle should have an exhaust system that directs all heat and exhaust gases away from the operator and all passengers. The system should have a sound level that is un-offensive and comparable to that of a factory-built motorcar of the vehicle's same size, weight and engine type. The system should be located so it will cause no adverse temperature rise in any other part of the vehicle.
- j) **FASTENERS** - All frame, structural and suspension components that are mounted with bolts should use fasteners that are a minimum of grade 5 or metric grade 8.8. All wheel mounting bolts and nuts should be fine thread grade 8 or metric grade 10.9 and be installed with lock washers. All other bolted assemblies should use lock washers or a self-locking type nut. Use of a removable thread locking fluid is recommended. [Please refer to the bolt head grade chart on page 4]
- k) **FENDERS** - Fenders, flooring and/or running boards should be designed to a sufficient width in order to cover the entire width of each wheel. The top of all wheels should be covered and cannot be left open or exposed to the operator or passengers.
- l) **FRAME DESIGN** - The frame should be designed and fabricated in a way that it has sufficient strength to not only support the vehicle and it's operator, but it also should exceed the strength necessary to support the maximum number of riders the vehicle can seat. It should

also be able to support the weight of any additional tools, luggage or equipment the vehicle is capable of holding. No components should project from the vehicle lower than 2.0 inches above the rail head.

- m) **FRAME GEOMETRY** - The frame should be designed and fabricated in a way that it is flexible enough and have proper weight distribution to allow all four wheels to be in constant contact with the rails even under severe changes in track geometry. The vehicle should be designed and fabricated to be “front heavy” with a front to rear weight ration that is similar to that of a factory built car that is in the same size and weight class. [Please refer to “Frame Design Choices on page 4.]
- n) **FRAME RAILS** - Each frame rail should be fabricated from one continuous piece of material. Bolting or welding in order to extend or modify frame rails is prohibited. Frame rails should be fabricated from material with sufficient enough thickness and width to supply proper frame rail strength. Care should be taken when choosing the proper alloy for frame rail applications. Care should also be taken when choosing the structural configuration of the frame rails. Material such as square tubing has a greater resistance to flex than channels or angle configurations. So square tubing would be a poor choice for a flexible chassis design. [Please refer to “Materials Hint” on pg. 4]
- o) **FUEL TANK** - The fuel tank should have adequate capacity in order to prevent premature or frequent re-filling on an excursion of average NARCOA length. The tank should be mounted securely and in a location that eliminates fire hazard from spilling, overflow, or draining of fuel. The tank should be mounted in a location that would help prevent puncture in the event of an accident.
- p) **MATERIALS** - All materials used during fabrication or modification of the vehicle should be suitable for and used for their intended application. When selecting materials, care should be taken that the materials selected are able to withstand the stress they will be subjected to. [Please refer to “Materials Hint” on page 4]
- q) **PARKING BRAKE** - Every car should be equipped with a parking brake capable of holding the car in place. If the brakes are pneumatic or hydraulic in operation, a separate and independent mechanical brake linkage should be provided for emergency/parking brake use.
- r) **RUNNING GEAR** - All hubs, axles, bearings and additional running gear should meet or exceed factory motorcar design, strength, composition and manufacture specs. All hubs, axles, bearings and additional running gear should be of the proper size and strength for the vehicle’s size and weight class.
- s) **SEATING** - Operator and passenger seating should be mounted securely. Seats should be mounted and positioned in such a manner that no occupant of the vehicle is ever put in danger of falling out of the vehicle or being put in contact with any moving parts.
- t) **TOP SPEED** - The vehicle should be capable of operating at speeds comparable to a factory-built motorcar of the same size and weight class.
- u) **TURNING** - The operator should be able to turn the motorcar at a road crossing in a reasonable amount of time by means of lift handles or a turntable. Note! Cars that can not be turned easily can disrupt the timely running of excursions.
- v) **TRANSMISSION** - The transmission should be such that it allows for full speed operation in forward or reverse and can easily be shifted into neutral.
- w) **WHEELBASE** - The vehicle’s wheel base (axle center to axle center measurement) should be not less than 32” and not greater than 98”.

- x) **WHEELS** - All vehicles should have four OEM (factory-made) wheels.
- y) **WHEEL SPECS** - All wheels should be a minimum of 14 inches in diameter and manufactured from a steel alloy. Vehicles that weigh more than 4,000 lbs should use four heavy-duty cast wheels.
- z) **WORKMANSHIP** - Each vehicle should be free from defects such as incomplete or improper welds, heavy rust, cracks or other defects that could impair it's operation and integrity.

Frame Design Choices -

There are two choices that a builder has when designing a motorcar frame. The frame can be designed to be flexible enough to keep all wheels on the rails as best as possible by allowing the frame to flex during changes in track geometry. Or the second choice the frame could be built rigidly and an equalizing pivot joint or joints must be added in order to keep all the wheels in contact with the rails. The rigid frame with pivots design can be bulky, heavy, and complex to design and work properly. So the flexible, "Fairmont type" frame design would be the wise choice for a custom motorcar frame.

Materials Hint -

Many alloys of steel or aluminum do not have the same properties. For example; some aluminum alloys should not be welded while other alloys are totally suitable for the welding process. Many heat treated aluminum alloys tend to crack when bent, but they do a great job when used in unbent applications. Other alloys bend more easily, but that flexibility may come at the cost of the alloy having a lower tensile strength.

The improper choice of steels or stainless steels could also have detrimental results. Some alloys of stainless steel should not be welded, some have low tensile strength, yet others are way too brittle to use. Caution must be used when selecting stainless steel bolts and nuts. Many stainless fasteners, although being corrosion resistant, do not even have the tensile strength of grade 5 fasteners.

During the alloy steel manufacturing process various elements including carbon are added to give the steel it's required properties. Some grades of steel may appear to weld properly, but the weld area may crack readily. This is due to the steel being made up of a combination of elements that develop an improper grain structure when that steel is subjected to a welding process.

A heat-treated or hardened piece of steel may be perfect for certain high wear applications but when used in conjunction with the wrong mating material excessive and premature wear will result on the mating piece.

The entire point of the above paragraphs is to show that all materials are not "created equal". Be sure that you know what you are buying the next time you purchase materials for your motorcar building project!

Bolt Head Reference Chart:

Grade 5



Grade 8



Metric
Grade 8.



Metric
Grade 10.



✿ THE VEHICLE SHOULD BE GIVEN STATIC AND ON-TRACK INSPECTIONS ✿

The static inspection -

Overall vehicle appearance is a very good key to determining if the car builder has done a proper job. If a car builder takes the time to make sure every little detail has been taken care of, it is a good indication that the car has been assembled properly. For example; poor looking welds could mean that the person doing the welding didn't know how to perform this operation. Crude looking welds aren't always weak welds, but if the car builder compromises on the integrity of the car's welds, then short cuts could have been taken in other areas. This "attention to detail" concept of inspection can be carried over into other area too.

STATIC INSPECTION CHECKLIST:

- a] Is the wiring neat and properly secured?
- b] Does the car present a professional appearance?
- c] Were all the NARCOA Rulebook Mechanical Standards met?
- d] Were all the Mechanical Standards listed in this handbook met?
- e] Were fasteners and locking devices of the proper size and strength used?
- f] Was attention given to the vehicle's undercarriage and parts that are out of direct view?

The on-track, test ride inspection -

It is impossible to determine the tracking, stopping, balance or the overall performance of a motorcar without operating it on the rails. Final determination as to whether a car can be approved should not be done until the vehicle has been taken for a test ride. When taking the car for the test ride, the operator should start out in a very slow and cautious manner. Then eventually work up to track speed after the vehicle has proven to be stable and safe to operate at lower speeds.

TEST RIDE INSPECTION CHECKLIST:

- a] Does the vehicle have sufficient power to move it's loaded weight at average NARCOA motorcar excursion speeds?
- b] Does the vehicle operate as if it is geared or over-powered so that it is capable of excessively high unsafe speeds?
- c] Does the vehicle operate as if it were under-powered or geared to prevent reaching top speed?
- d] Do the brakes feel as if they are adequate for a vehicle of this size and weight?
- e] Can the braking system lock-up all four wheels at once and slide on dry rail?
- f] Does the parking brake perform properly?
- g] Are all important controls (i.e.: brake lever, throttle, shifter, clutch, horn, ignition kill) within easy access of the operator? Can all these controls be selected and reached quickly during emergency situations?
- h] Are there any moving parts or "nip points" close to the operator or any of the passengers?

- i] When seated in the operator's seat or in any passenger seats, does the rider feel safe, secure and comfortable during vehicle operation?
- j] Does the vehicle run straight and true at all speeds? Does it give an overall feeling of adhesion to the rail when operating over all types of track geometry on tangent or curved track at all operating speeds?
- k] Does the vehicle have adequate operator visibility for forward or reverse moves? Does the vehicle have adequate side visibility? If the vehicle were loaded with passengers, would the operator still have adequate visibility?
- l] Can the vehicle be put in neutral and towed or pushed easily in either direction?
- m] Does any excessive wheel vibration, wobble or eccentric action take place when the vehicle is operating in it's intended speed range?
- n] Does the vehicle tend to "hunt" back and forth on the rails?

Inspection Hint - A factory-built motorcar of similar size, weight and power can be used as a reference vehicle. For instance the reference motorcar could be used to compare performance of the braking system or to get the general "feel" of a car that size. The reference motorcar could also be used to compare frame rail thickness or to compare any other aspects of material composition, strength or size.



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Send ads directly to **Charlene Morvay, 17825 Route 8, Union City, PA 16438** or email: setoff@juno.com

For Sale

Fairbanks-Morse 40-B Railroad Motor Car, two cylinder aircooled engine, friction drive. Car in running order and all in original form as when retired from the Winston-Salem Southbound Railway. An original turntable goes with car. Price is \$1,900.00 for both items.

Fairmont Railway Motor Car Master M2 and a predecessor to S2 style. Belt driven, 20" wheels, metal front with 2 windows, metal running boards, 8 HP, Type HP QBA, Group E, Special 1, Max HP 13, Engine #82573. Car in running order and all in original form as when retired from the High Point, Thomasville & Denton RR Co. An original turntable goes with car. One piece of turn table missing. Price is \$1900.00 for both items. Contact Ray Hinkle, P.O. Box 1127, Welcome, N.C. 27374 or Tele- 336-731-4231 or email: HINKLEHERE@AOL.COM MJ06

Lanterns – The Wabash Lives!! B&O; Katy; MoPac; AT&SF; OSL; Frisco; Erie; P&R; B&M; T&P. I'm not just talk'en N.P. or G.N. here. Many rare lanterns are from "fallen flags" of 75 years ago. For sale are some lanterns from my family collection started in 1859. Over 250 lanterns and a few caboose/rear car lamps and a few switch markers. Will sell in "lots" of 10. These type/quality ain't cheap. Please know the market value. Will not trade for any speeder. Located near Seattle, WA. Will sell "fixed" globe lanterns by themselves. Call Bruce at 425-277-5228 or email: a1hobo@earthlink.net. Member of NARCOA/PRO. JF06

MT-19A CN138-29 Closed cab, new wheels, new Les King rear axle assembly, new chain, electric turntable, radio antenna, and tow bar. Road ready with trailer. Has run great for nine years. \$3,500.00. Bill Fredette, Hudson, OH, 330-342-0983 or email fredettew@aol.com JF06

For Sale

Ron's Rider. Two seats. Located in South Florida. Converted to 4HP Briggs & Stratton. Still has pedals. Front and rear lights. Not NARCOA-ready, but fun to play with if you have the place. \$1,150 with trailer, \$850 no trailer. Addison Austin, 939 North River Rd. LaBelle, FL 33935 email: onrustab@yahoo.com or call (863) 674-0647 JF06

FOR SALE – MT19A-2 with fiberglass cab. This car is a squeaky clean car inside and out. It comes with all equipment including the operating and parts manual. Completely NARCOA ready. All you need is your insurance and membership. It is on a new custom built trailer with nearly new 13" tires. This car is located in north Idaho, 75 miles south of Coeur d' Alene. Email me for pictures and/or questions. \$5,900 firm. Will consider part way delivery. Jerry Bates 1-208-858-2103 or email jerrybates@sheepskinsnyarn.com JF06

Last of the Canadian Speeders going quick! I still have a few speeders left, some complete some not, some Fairmont, some Railcar Canada some Woodings. Small cars, big A 4's you name it, I'm sure I have it. Prices are cheap and now is the time to get one before they are all gone. Anyone needing small parts and pieces I have those too. Come on guys and gals take a 2005 summer vacation. Come to BC and don't forget to bring your trailers! These cars are located in Southern British Columbia 3.5 hours north of Spokane, WA. All cars sold as is/ where is condition. Please do not hesitate to contact me for further info and pictures. All sales in U.S. funds or Canadian equivalent. Contact: Terry Baumann, Nelson BC, Canada Phone: (250) 229-4474 or email Greenacre@telus.net JF06

For Sale

Fairmont MT-19. This is an opportunity to acquire one of the popular MT-19 open cars with the "V" roof. The car is in good mechanical condition, having been run and maintained regularly for a number of years. It has a hydraulic turntable with enhanced warning system that has both an audible horn, and a red light. In addition, this car is equipped with a green safety light that confirms the turntable is fully retracted and the car is safe to operate (most turntable cars have only a warning indication which, in the case of an electrical malfunction, could put you at risk). Among the many enhancements made to the car are the following: headlight and dual tail/stop lights, air horns with instant-on electric compressor as well as a set of auto horns, electric fuel pump, seat belts on both seats, front panel stabilization brackets that also serve as flag storage. Car is fully wired for a Motorola Maxtrac radio and antenna. The car was fully restored with a new (rebuilt) starter, transmission overhaul, new engine compartment top and side panels, new engine electrical parts. The car has been painted and fully rewired. If the purchaser of this car needs a trailer to complete the package, a single drop axle professionally built trailer with manual winch is available. If you like an open sporty feeling, this is the car for you. Almost like driving a Porsche on the rails. \$4,850. Contact Ed Best 925-837-7690 or email at edbest@comcast.net. JF06

1942-44 M9C rare, pointed-cab Pere-Marquette Motorcar. Complete restoration. Go to web site home.columbus.rr.com/ssmith80 for details. Ralph Smith (located near Columbus, Ohio) email: ralpholdengines@sbcglobal.net or 614-879-6978. JF06

For Sale

Fairmont parts for sale. I have been selected as the East coast sales representative for a old established motorcar, motorcar part and M-O-W machinery sales firm. We have approximately over 100 motorcars from M-19's, MT-19's, S-2's, CMT-19's, CMT-14's and some of about each A-car built. We even have several A-cars with snowplow pilots, from the Alaska RR. We also have a multi-million dollar part inventory with almost everything New Old Stock and a few used parts. There are NO wheels or motors available at this time. We have cab parts for all sizes of cars, frame members, rail sweeps, hand cranks, carbs, alternators, set off levers or just end castings, seats, curtain kits, axles, bearings, you name it and we've probably got it. There are at least 15 vans full of parts. Way to order: e-mail me at Brown RR Equipment, Eastern Sales Rep, at rrequipment@earthlink.net with the part number(s) you are looking for, with a description of the part. You will need to include a complete shipping/mailling address and telephone number(s) for our reference. I will cut an invoice and look through our parts inventory and see if we have the part(s) you require. If we do have your part(s), I will send you an e-mail with the prices and shipping information. We are working on photos of the speeders to be added to the web site in the near future. Right now, we can supply photos attached to e-mails of a car or part that you are requesting info on. At this time we are unable to accept credit cards. However, bank checks or money orders will suffice until we have the ability to handle credit cards. E-mail us with your parts request or speeder needs. Hugh Cain. JF06

Velocipede. Used on the MK&T Railroad at San Antonio, Texas through the 1950s. Original except for new oak handles. Located in Georgetown, Texas. Asking \$2,000. Buyer to pay for crating and shipping. Phone: 512-863-6391 or email: turnercb3@aol.com. Charles Turner MJ06

For Sale

1951 Kalamazoo 8-Man Motor Car and extra open car. Excellent condition. 243 hours. Transportation Corps. Custom ordered by the Dept. of the Army. Great history, 4-cylinder (Hercules) flat head with magneto ignition. 3-speed transmission with reverse. Enclosed cab; headlight included. Runs like a clock. Great long distance car to carry passengers if you convert the open car to seats, or use as an open car to carry tents, supplies, etc. No rust, but needs to be painted. Call or email for pictures and information. \$4,500 OBO for both. (301) 922-2009 or email to CMCLEAN@RBHNUR.USDA.GOV JF06

Fairmont Pin. Be the first to own this just released limited edition Fairmont Safety Slogan pin. This finely crafted pin is an exact copy of the famous placard that Fairmont installed on all their speeders. This handsome pin is 1" in diameter and has fired-enamel custom colors on a polished metal base. The back has an 8mm post with a butterfly clutch attachment. Wear this pin with pride and demonstrate your safety consciousness on the rails. Pin is just \$5.50 USD, which includes postage and handling. Act now - quantities are limited. Contact Bill Coulson 964 Williams Lake Road Colville, WA 99114. Tel: 509 685-2326 or E-mail: wcoulson2001@yahoo.com MA06



Rail Rod. Like new; original condition. Two-seater, Briggs motor, wheels, etc. Used very little; in storage most of its life. \$1,500. Contact Wayne Rimathe (515) 228-3019 (Slater, IA) or email llamas@huxcomm.net. MA06

For Sale

FOR SALE - 1957 Fairmont M19F-3, shipped to Pacific Great Eastern Railway and numbered M19-9. Restored in 2002 using all new mechanical parts and a professionally restored ROC engine. All sheet metal in perfect shape. Les King folding seats with retractable seat belts. NARCOA compliant. 6V alternator, authentic swivel front light, gas tank guard, fuse block and extra Pontiac Coil. Test run was 80 miles in the rain and it never missed a beat. This is virtually a brand new car. \$2,500. See the story of the restoration at: <http://motorcar.winkworth.us>. Call Jeremy Winkworth at 269-388-5058 or email jeremy@winkworth.us Car is located in Michigan. MA06

1983 Fairmont MT-14L2, ex-CP. NARCOA ready. Great condition, runs flawlessly. Thoroughly sound-insulated, expertly rewired, new engine enclosure and stainless-steel grille, new deluxe Les King seats, indoor/outdoor carpeting, 12-volt accessory plug. Woodings doors for more air and better view. Cared for and run meticulously. Loads of extras, including top strobe, tow bar, extra muffler. Cost \$4,500 just 9 months ago, asking \$4,000.

Also available: **Texas Bragg 6' x 10' 3,500-lb. capacity trailer,** less than one year old, used for 1,000 miles. 2,000-lb. two-speed hand winch, breakaway brakes, custom-reinforced tailgate for easy speeder on/off, mounted full-size spare, locking wheel nuts, waterproofed bed. Includes straps, wheel chocks. Cost \$3,000, asking \$2,500. Special price if bought together: \$6,250. Contact Dan Richman at (206) 533-6245 or email: DanielARichman@earthlink.net. Located in Seattle. JF06

Service for Alternators and Starters. I can rebuild starters and alternators for most motor cars. If you are have having trouble finding a replacement or repair, give me a call. Pricing starts about \$55.00, depending on unit and/or condition. Clyde Davis, 225 Ballenger Rd., Inman, SC 29349 (864) 472-4477 or email: wagonman55@hotmail.com MA06

For Sale

Motorola Railroad Radios. 128 channel, 50-watt units. These are good, clean, used radios that are just like the ones used in MOW service with all North American railroads. They come programmed with all 97 AAR frequencies as well as Canada, Alaska, NARCOA and five weather channels. Radios come with microphone, speaker and new mounting kit (includes wiring) and antenna. They come complete and ready to install in your motorcar. \$395 plus \$25 shipping and handling. Contact Tom Phair, Alamo, CA (925) 820-4159 or email: tom@phairst.net MA06

Original Fairmont Service Instructions and Parts List for the following cars (one each): M14 Series H Light Section Car, Bulletin 555E, December 1954, 57 pages; M14 Series H Light Section Car, Bulletin 555B, January 1949, 55 pages; A4 Series D and A5 Series E Gang Cars, Bulletin 827D, April 1972, 38 pages. Manuals are in excellent condition and have original covers. \$50 each, includes shipping. Contact Mike Ford mpford@indy.rr.com or 317-839-9320. MA06

MT-19s ex CN cars - QTY of 3: Three great Canadian cars. First car is all original from the railway and runs great (NARCOA ready). Second car has been all rebuilt from the frame-up and is almost finished, runs great (Will be NARCOA ready when sold). Third car needs a bit of work, but not too much, it needs a fuel tank and a few minor things but runs very good. \$3900US each for the two ready to run cars and \$2500US for the third car that needs a bit of work. Please contact me for more information and photos, Allan Wiens, Sundre, Alberta, Canada, Phone: (403) 638-3225 - email: railcarcanada@telus.net or check my website at: http://www3.telus.net/speeders/for_sale/sale.html MA06

For Sale

Custom Tandem Trailer, built in 2005. Tandem trailer with electric brakes, 3,500 lb. electric winch with remote controls mounted inside large lockable metal storage box, attached to trailer. Removable ramps stored on top of storage box. Bright red finish with polished bright diamond plate added to trailer for protection. All trailer wiring including break-away and electric winch are mounted inside of lockable storage box for safety and protection. Trailer is licensed and registered in California. Trailer has only 200 miles on it. Price is \$3,000.00 dollars firm. Will consider delivery in Southern / Central CA, buyer pays for gas. Contact: Jack Forgues, Castaic, California 91384, phone: (661) 295-7132 or email : jr4gus@pacbell.net MA06

Fairmont M19-F-1-30 Inspection car, ex-Chesapeake & Ohio Ry., Barboursville, W.Va. Car has wrap around steel cab, RO-C engine, car built 12-15-48. Recent frame off, body sandblasted, new wood, new glass & rubber molding, motor rebuilt, new wiring and paint. Price \$2,500

Fairmont S2-E-4 Section car, ex-Carolina Southern Ry., Windsor, NC, 8 H.P. RQ engine, car built March 1952, rebuilt/restored 1970, first class new paint job 2005. Canvas with windows windshield included. \$3,000

Narrow gauge, 36" section car, E.B.T.R.&C. Co., Fairmont QH engine, built 6-23-20, open car with steel & glass windshield. Built East Broad Top Railroad shops Orbisonia, PA. Car in great shape, new paint, a real piece of history. \$4,000. Bob Newton, Farmville, NC 27828 (252)753-4157 evenings after 6:00 p.m. E.S.T, or email: wnewton2@nc.rr.com JF06

For Sale

MI - 1946 M-19 Fairmont Motorcar with ROD engine (tapered roller bearings). Was in process of restoring car; just needs to be painted. I really enjoy it as an open car. It has the pointed nose/ V-nose cab you don't see very often. I can send pictures of the cab. Four new wheel bearings and engine completely gone through; starts and runs great. 12 Volt system/alternator with voltage regulator down to 6 Volts for the buzz coil. All new wiring. Have run this car on the E&LS and LS&I in Upper MI and Coopersville, MI. Narcoa compliant. I don't know railroad history of the car other than what I was told. Trailer does not go with the car. Call Kevin Cushway at 231-796-5495 Big Rapids, Michigan \$2,000. MJ06

BN1232M, a 1983 Fairmont MT-19 Series A2-14 motorcar with Onan CCKB-MF/2746J engine. This Burlington Northern railcar was reportedly the last one used between Everett, WA, and the Stevens Pass tunnel. It was stored in the Skykomish substation/powerhouse until entering the railcar hobby. Was used on Pacific Northwest railcar excursions from 1993-2000. In very good condition, includes two stock seats, side and back curtains, windshield wiper, Hunter gasoline heater, equipment/flag tube, NARCOA-approved hitches and towbar, flags, fire extinguisher, head, tail, and stop lights, amber beacon, horn, and Fairmont service instructions and parts list.

Fairmont M-19 Motorcar with Fairmont 5 HP, Type RO Group C engine SN 111529. Car is mechanically complete, without seats, windshield, or top. Includes Fairmont service instructions and parts list.

Set of four new Fairmont 16" wheels and two insulation sets picked up at Fairmont factory in 1995. Additional new flange brake shoes for MT-19 and other Fairmont parts.

Asking \$6,000 for all of the above. Kevin Saville, 1448 Old Military Road, Tenino WA 98589. Tel: 509-929-3760, 425-353-8013, or 360-264-4373. Email: kevin@saville.net or savillekr@verizon.net MJ06

Les King Motor Cars

www.leskingmotorcars.com - Your source for parts and remanufactured motorcars

Box 164, N. Lawrence, Ohio 44666 - Toll Free (Orders Only) 888-833-7989

For Sale

Fairmont MT-14. Fiberglass cab, twin cylinder four cycle electric start Onan engine and two speed transmission. All new glass and paint, travel cover, and many new updates. NARCOA ready. \$2,300. Pictures available on request. Pat Costigan, Marinette, WI (715) 735-9626 MA06

Trailer (push car). Heavy-duty (push car) on 14" wheels. Rigid bearing mounts: one solid axle and one differential axle; steel pipe lifting bars; perfect for Porta-Potty duty. \$350

Fairmont C-7 (M14) (complete except for 2-cycle engine) with fiberglass cab and plywood doors; degreased, cleaned and painted; drive belt and idler assembly intact. Oak lifting bars; head, tail, and stop lamps. Install an engine and it's ready to run. \$750

Fairmont M-9G 1949 Northern Pacific 84912. Strong two-cycle engine; glass-pack muffler; new battery; extra new coil. Flange brakes; head lamp, tail lamps, stop lamp. Two extra 14" wheels. Aluminum front, roof and back on original NP supports (replacing plywood). Passenger seat (engine cover extension for operator); fire extinguisher; first aid kit. Build documentation and Operator Manual; heavy-duty tow bar. Complies with lightweight open frame road trainer, hand winch, ramps, and spare tire.

Cars in Washington. Contact Roger W. Sackett, 4501 169th Ave. S.E., Belleville, WA 98006. Phone: (425) 643-0669. MA06

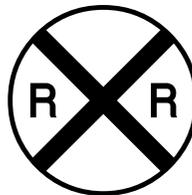
Fairmont M-19 Inspection Car: lights, alternator, windshield, top, curtains, seat belts; ready for the rail. \$2,500. **Fairmont MT-19 Inspection Car:** 20 HP Onan with low hours on engine, windshield, top (needs minor work). Runs great! \$1,800. **Fairmont ST-2 Section Car:** two-speed transmission, lights, alternator, four seats, ready for the rail. Runs great! \$2,000. **Parts:** four dumpie trailers (\$150-\$400). Several axles, bearings, wheel assemblies, wheels within wear tolerance. New Onan 20 HP engine with clutch assembly. \$1,500. Contact Ed Kamp 515-382-3740 or e-mail dekamp@netins.net. MJ06



NARCOA high performance 3m vinyl decals. Black. Measures 2-1/2 " x 22". \$5.50 each includes postage. Other colors available.

Fairmont logos also available. Send requests to:

Jana Mitzel
787 S. Meridian Road
West Brooklyn, IL 61378



Excursions

Members who have organized meets are encouraged to advertise those events here.

We will publish all notices received. Include details of the trip such as time schedule, total mileage, costs, restrictions and conditions for attending. State whether or not NARCOA rules will be in effect and whether insurance is required.

Send meet notices to:

Charlene Morvay
17825 Route 8
Union City, PA 16438
or
email: setoff@juno.com

PLEASE NOTE: Advertisement of a meet in the SETOFF does not constitute responsibility by NARCOA and/or its officers, or *The SETOFF* and/or its editorial staff for meet conditions. Meet attendees must exercise caution in the observance of safety conditions and rules and must accept full responsibility for themselves, their guests, and their equipment when attending any meet.

February 25-26, 2006

McCloud River Railway – Snow Run **(Tentative pending rail condition)**

Coordinator: Tom Phair - P.O. Box 664 - Alamo, CA 94507 - email - tom@phairs.net or telephone 925-820-4159. **Set-on:** Friday February 24, 2005 McCloud, CA at engine house starting 3:00 - dusk; Saturday morning 8:00 a.m. **Run Fee:** To be announced. **Special requirements:** None. All NARCOA members having current NARCOA liability insurance and Rule Book Certification are welcome. Membership in SWRC is not required.

April 8-9, 2006

Skunk Train – Garden By The Sea Tour **(Applications accepted after Jan 1, 2006)**

Coordinator: C Patrick (Pat) Coleman - 1989 Robin Ridge Ct - Walnut Creek, CA 94597, 925-979-1030 or patcoleman@astound.net. **Set-on:** Saturday morning April 8, 2006, 7:00 a.m. Commercial Street Station. **Departure:** 9:00 a.m. Run itinerary: Willits to Fort Bragg, CA, and return next day. Saturday afternoon tour of the Gardens By The Sea located north of Fort Bragg, CA. **Run Fee:** \$195.00, check payable to SWRC. **Special requirements:** 25 car limit, mobile radio (not handheld). All NARCOA members having current NARCOA liability insurance and Rule Book Certification are welcome. Membership in SWRC is not required.

May 20th – 28th, 2006

CORP Shasta-to-the-Sea Run **(A complete tour of the Central Oregon and Pacific Railroad)**

Coordinator: Tom Phair - P.O. Box 664, Alamo, CA 94507 - email: tom@phairs.net - Telephone (925) 820-4159. Cell (530) 714-9582. **Set-on** in Weed, CA, on May 19th. **Departure:** Saturday, May 20th with overnight stops in Medford, Roseburg, Eugene, and Coos Bay, Oregon. We will have a day off in Coos Bay before returning to Weed on Sunday, May 28th. **Run fee:** \$2,495. Included are eight nights of hotel accommodations (two people), track-side refueling, and all necessary ground transportation. Due to the restraints of not being able to use Union Pacific tracks in crossing the Eugene yards, we will be using a "truck bridge" to transport all speeders from the east side to the west side of the city. **Special requirements:** None. However, it is strongly suggested that all cars be equipped with seat belts. Due to the length of the trip, it is also strongly suggested that all cars be equipped with mobile radios tuned to the NARCOA channel. All NARCOA members having current NARCOA liability insurance and Rule Book Certification are welcome. Membership in SWRC is not required.

May 27-29, 2006

Camas Prairie Motorcar Excursion

PRO is pleased to announce a 3-day run over Memorial Day Weekend (May 27-29, 2006) on the former Camas Prairie Railroad, beginning at Lewiston, ID. Saturday we will run the Riparia Branch (Great Northwest Railroad), Sunday the Cottownwood Branch (BG&CM Railroad), and Monday the Kooskia Branch (BG&CM Railroad). Pricing and details will be posted later. For more information contact **meet coordinators** Steve Taulbee email: taulbee1@cableone.net, phone: (208) 746-5430 or Jim Morefield email: jmorefield@cableone.net, phone: (208) 743-0802. This run will provide beautiful scenery, tunnels and trestles, and much, much more. Mark your calendars now.

June 10-11, 2006 (Saturday/Sunday)
Huron and Eastern Railway (Michigan)

North Central Railcars, Ltd. is pleased to announce a first time, two-day motorcar excursion over a portion of the Huron and Eastern Railway (HESR) on Saturday and Sunday, June 10-11, 2006. Participants will travel approximately 227 miles over two days between Bad Axe and Crosswell, MI, and Bad Axe and Vassar, MI, in the rural "thumb" region. Registration materials and complete details will be sent upon receipt of the excursion fee. Each participant will be expected to bring and wear safety eyewear/glasses with side shields, high-visibility vest, and work gloves. This is a HESR Rule. No exceptions. **Excursion Fee:** \$200.00 (payable to North Central Railcars) includes all railroad fees and other excursion related expenses. There is a 25-car limit. This is a NARCOA-insured excursion and all NARCOA rules will apply. To register, or for more information, contact Michael P. Ford, 7712 Carpenter Court, Plainfield, Indiana 46168-8035. Tel: (317) 839-9320 or email: mford@indy.rr.com.

June 11, 2006

Niles Canyon Railway Rides for the Public (All proceeds go to Niles Canyon Railway)

Coordinators: C. Patrick (Pat) Coleman - 1989 Robin Ridge Ct - Walnut Creek, CA 94597, 925-979-1030 or patcoleman@astound.net; Al McCracken - 2916 Taper Avenue, -San Clara, CA 95051 - 408-249-2953 - alnethie@aol.com. **Set-on:** Sunday morning, June 11, 2006 - 8:00 a.m. Sunol Depot - 1st Run 10:00 a.m. Last run 3:30 p.m. **Run itinerary:** East from Sunol Depot to Hearst siding and return repeated all day - 1.9 miles each way. **Run Fee:** No charge. **Special requirements:** Experience operators only. All NARCOA members having current NARCOA liability insurance and Rule Book Certification are welcome. Membership in SWRC is not required.

July 10 to 31, 2006

Canadian National Tour

(Applications accepted after 1/1/06)

Coordinator: Tom Phair - P.O. Box 664, Alamo, CA 94507 - email - tom@phairst.net - Telephone (925) 820-4159; Cell (530) 714-9582. **Tour price:** \$4,500 including run fuel for motorcar, hotels, and some meals. **Special requirements:** Seat belts, approved safety vest required by CN. Mobile radio (not handheld) required by SWRC. All NARCOA members having current NARCOA liability insurance and Rule Book Certification are welcome. Membership in SWRC is not required.

September 17, 2006

Niles Canyon Railway Rides for the Public

(All proceeds go to Niles Canyon Railway)

Coordinators: C. Patrick (Pat) Coleman - 1989 Robin Ridge Ct - Walnut Creek, CA 94597; 925-979-1030 or patcoleman@astound.net; Al McCracken - 2916 Taper Avenue - San Clara, CA 95051 - 408-249-2953, alnethie@aol.com. **Set-on:** Sunday morning, September 17, 2006 - 8:00 a.m. Sunol Depot - 1st Run 10:00 a.m. Last run 3:30 p.m. **Run itinerary:** East from Sunol Depot to Hearst siding and return repeated all day - 1.9 miles each way. **Run Fee:** no charge. **Special requirements:** Experience operators only. All NARCOA members having current NARCOA liability insurance and Rule Book Certification are welcome. Membership in SWRC is not required.

September 29-30, 2006

NARCOA Annual Meeting

Wyndham Hotel – Chicago, IL

All members welcome to attend.

November 25, 2006

Skunk Train – Annual Turkey Run

(Applications accepted after 9/1/06)

Coordinator: C. Patrick (Pat) Coleman - 1989 Robin Ridge Ct - Walnut Creek, CA 94597, 925-979-1030 or patcoleman@astound.net. **Set-on:** Saturday morning, November 25, 2005 - 7:00 a.m. Commercial Street Station. **Departure:** 9:00 a.m. **Run itinerary:** Willits to Fort Bragg, CA, and return same day. **Run Fee:** \$135.00. Check payable to SWRC. **Special requirements:** mobile radio (not handheld); 30 car limit. All NARCOA members having current NARCOA liability insurance and Rule Book Certification are welcome. Membership in SWRC is not required.



Rocky On the Rails

Photos submitted by Rod Whitney



Let's Go Dad!



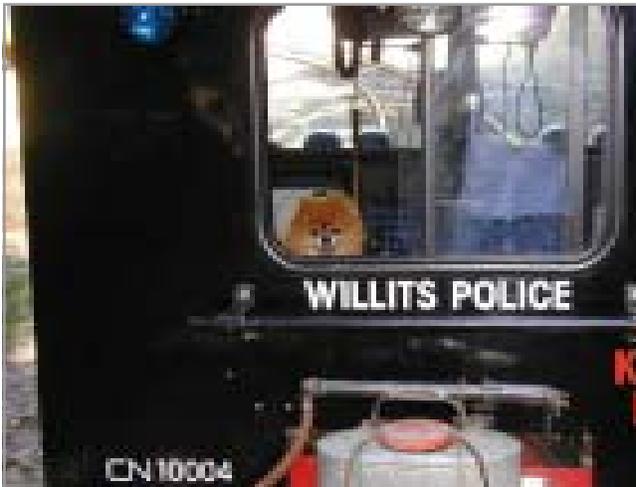
Now What?



Geraldine, MT



Fire Patrol



Let's Go!



On The Wye

North American Railcar Operators Association (NARCOA)

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Vice-President Ken Annett

Secretary Joel Williams
Treasurer Tom Norman

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