

Scratch-Built/Bash Live Steam: Redbeard's Rail-Truck

BY

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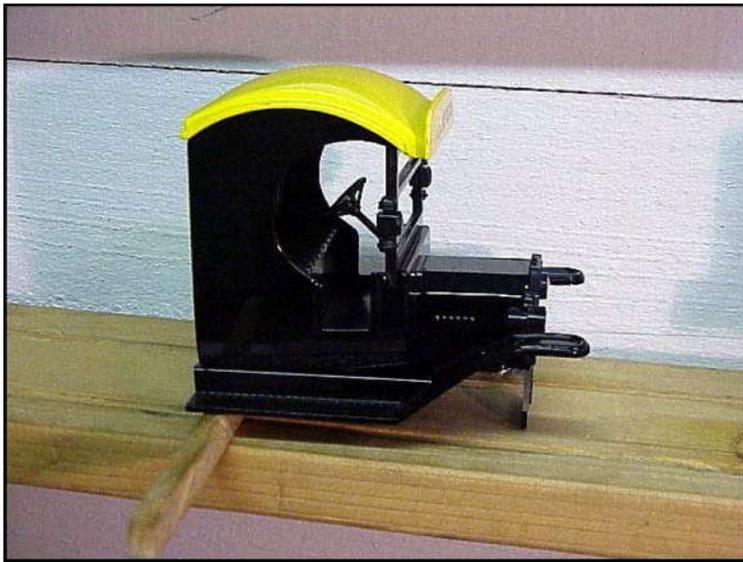
[\(Live Steam Forum/Topic: redbeards railtruck\)](#)



Well the pirates are getting restless! Now they have stolen, I mean acquired a 1912 C-cab Ford oil tanker. Who knows what they are thinking! They'll probably want to build a small fast hauler to get their "ill gotten booty" to the hideout in the mine.

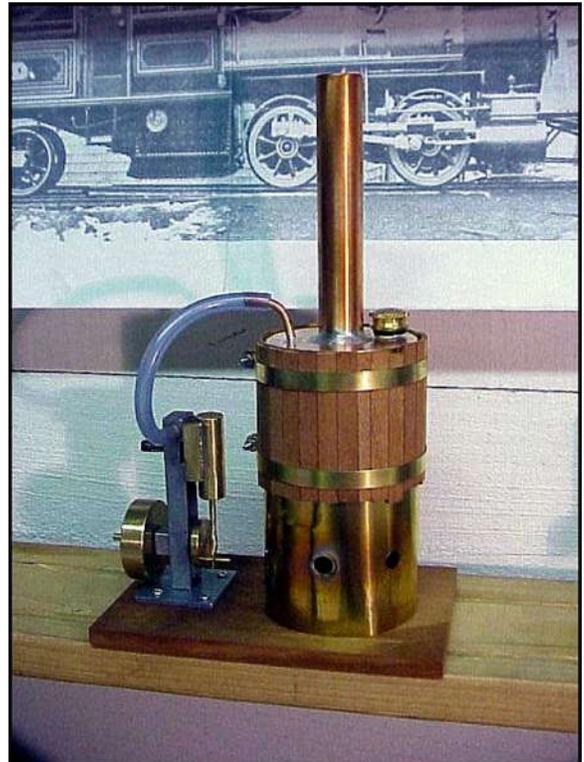
I decided a while back that I really wanted to build a C-cab railtruck. Goes back to my hot-rod and drag racing roots. Anyway I started collecting parts for this at Diamondhead in January. The truck is a 1/24-scale die cast bank I found on E-Bay. I plan to use the cab and front fenders only.

Here is the basic truck.



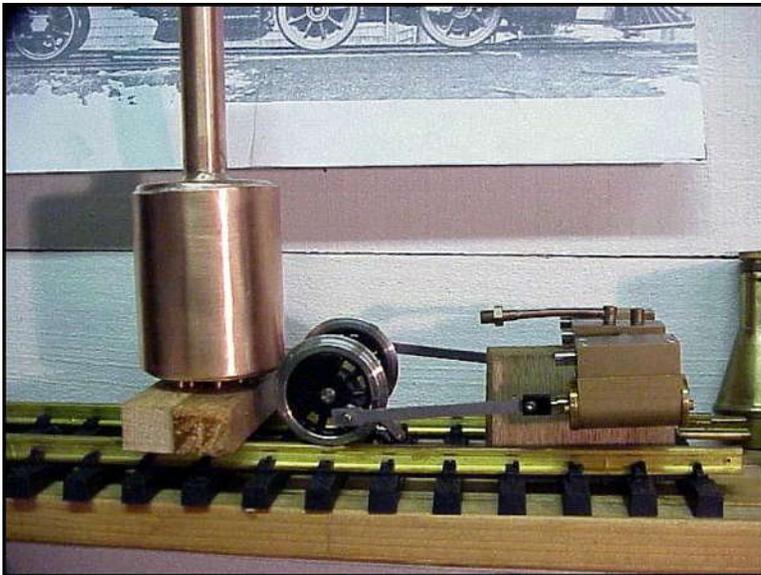
And here are the parts I will use.

The original idea was to use a Midwest Heritage boiler and engine that I picked up as a kit at the flea market at Diamondhead. I put the kit together and talked to several steamers about it. While it runs good and is kind of fun, it just does not have the power I am looking for. I got a lot of advice from Harry Wade about the boiler and decided to leave the kit intact as a stationary engine.



So I built my first boiler, actually as I write this, I am building my first boiler. I am waiting for a few supplies to arrive before I finish the boiler. It is a vertical boiler about the same size as the one in the Midwest kit, but is much thicker materials. I used 2-inch type L tubing for the body. Using the post from Larry Herget on his coal-fired Ruby construction, (found in the "Informative Threads Index" here in My Large Scale under Live Steam) I formed the flanged ends from 1/16 thick copper sheet. I turned a hardwood former for this and used a c-clamp instead of doing it on my lathe. I decided to add "hedgehog spikes" to help the heating process. I did the boiler work late nights after working all day and did not take pictures while building it. It is all soldered with 70% silver solder. (1275 F melt) I will be building a gas burner for it and will try and take pictures as I go.

So now I was needing to decide on the power for the truck. I had these two 10mm Ruby cylinders left over from the Mason project. (I upgraded it to 1/2-inch cylinders) Problem was, I had no valves for them. I thought about building a valve for one of them and using a single cylinder for power. I looked hard at whether I could machine a piston valve accurately enough to work. On the advice of a friend I called and talked to Dave Hottmann about this. On Dave's advice I called Cliff at Accucraft and checked on getting a valve. I now have a complete valve assembly coming, both sides and the reverser valve. This of course started me thinking about using both cylinders and having a truck that could pull a car or two. Hmmmm. So this is where I am right now.



What to do? As you might guess by now I am not planning this thing at all. I have no prototype, no pictures and no drawings. Seems to be more fun this way. Don't know yet what wheel arrangement or wheels or anything else yet. More to come!

Bruce Gathman:

Larry, Ya thinking of putting the cylinders vertical?

Hi Bruce, Don't know if you will see this before you take your "timeout" but after I spoke with you I decided against mounting the cylinders vertically. I am also pretty sure I am going to go with two drive axles.

Larry Green:

Larry, You have become addicted to the small and unique, a fine group to be sure.

Hi Larry, Thanks for the comment, I think I resemble that remark. I definitely march to a different piano than most. As I said earlier the whole idea for me is to have fun in my shop but away from my work. I hope to have this one and possibly another engine ready for Diamondhead. As well as some rolling stock for the pirates to pull.

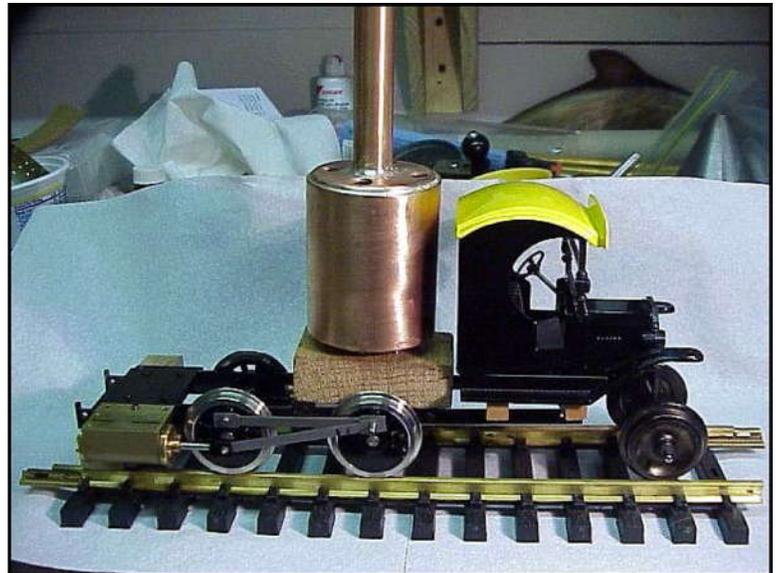
Howard Maculsay:

Larry, it looks like another interesting & challenging project. I'm just about finishing up my rail truck.... a very satisfying project. The best of luck to you!

Howard, You can be sure I have been following your log. I kind of felt odd starting this while yours is going on, but there really was no direct influence. Except that I also saw Sonny Wizelman's "Matilda" article and knew that I was going to build a truck. My design is still floating about but is beginning to gel. Since I am pretty sure that I am using both Ruby cylinders, I am probably going to build it so that it can haul some cars around. I am very pleased with how your truck is looking. Let's both keep "truckin"!

Anyway here is how my thinking is going today.

But all of this could still be tossed out if something else pops into my head. More Later!



I built the burner out of copper tubing using the basic layout from the plans for "Idris" by Dave Watkins. This is found on a link from Vance Bass.

<http://www.nmia.com/~vrbass/steam/drawings.htm>



I did not follow it but used it as a basis.

I turned a jet from brass stock and soldered it directly to a piece of 1/8-inch copper. I figure I won't be changing it! Here are the parts finished;



... and here is the burner putting out some heat!

This is as far as I can go with the burner until I make the boiler base and mounts. I am still waiting on a couple of fittings for the boiler, so the tuning of the burner will have to wait. More to Come!

David Wegmuller:

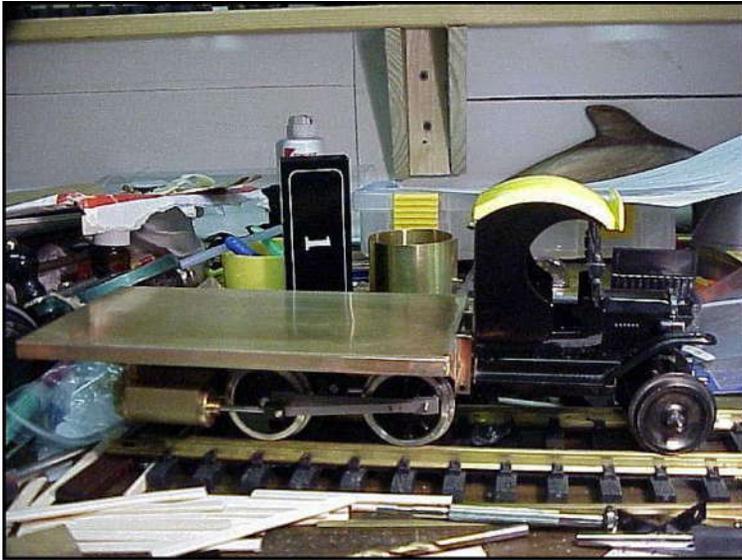
Hi Larry, Cool project! I have a similar ring burner and vertical boiler in my "Vermod" (http://wegmuller.org/trains/live_st...dex.html). See the last picture at the bottom of the page. I am very happy with this burner: it is quiet and economical. The Ruby gas tank I use is good for at least two boiler's worth of water. Each run lasts between 15 and 20 minutes.

Hi David, Thanks for the comments! I looked over your Vermod page, pretty cool! I have a feeling I may be setting myself up for a disappointing performance. Several friends have e-mailed me to let me know my boiler is too small for the two Ruby Cylinders. At this point I will probably continue and see what happens.

I built the mounts for the truck cab today. Here is a picture of the cab mounted;

As to the boiler situation I'll just worry about it for now and keep moving.





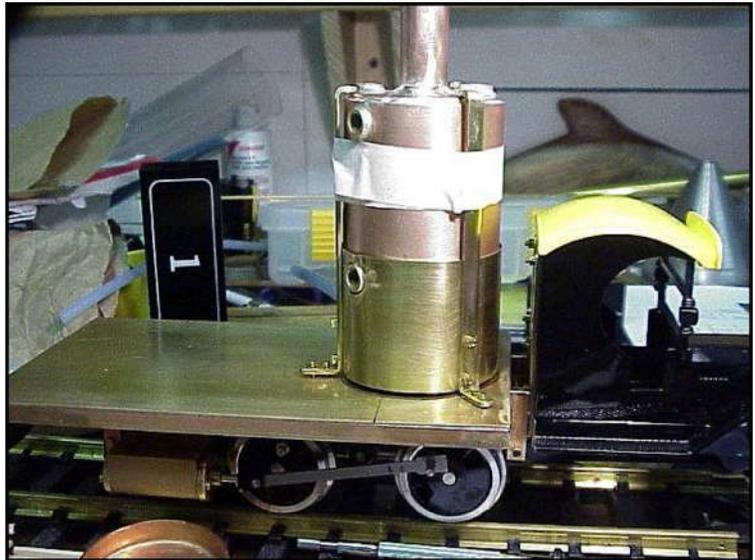
I started on the truck bed last night and finished almost all of it this morning. I left the rear edge open, as I have not yet laid out where the fuel tank will be. Right at the end of the bed underneath looks like the best location, but I have not decided yet. I needed to get the bed firmed up and mounted so I could build the boiler mounts. Here is the bed from the topside;

And here it is from the bottom; onward we go!



Today I built the mount for the burner. The bed will have a large hole underneath the burner to supply air for combustion. This will be bored the next time I take the bed off the truck. Here is the burner mount.

I also finished the boiler itself, so I built the mounts for the boiler also. The tape around the boiler is in place of a brass band that is not made yet. I still have not decided if I am going to wrap the boiler with wood. So the boiler bands are waiting for that decision to be made. I want to fire everything first and see how hot things get before I decide to stick some planks on the boiler. I have seen a few blackened planks on gas fired vertical boilers! Anyway here is the boiler mounted.



I will have to put this aside for a few days and attend to the real world before I get caught! Much more to come!

Gerald:

Hi Larry, From the last photo it looks like you are adding a water gauge, plus I have notice a few extra holes in the boiler top? I found out that the fill bushing that comes with the boiler kit is threaded on the inside the same thread as the Wileco safety valve, (it is also the same thread and fitting as a lampshade retainer).

Hi Gerald, I think you may have missed that I decided against using the Midwest engine and boiler. The boiler in the picture is one I built from much heavier materials. I decided to use butane to fire the truck and the consensus was that the Midwest boiler was not heavy enough for gas firing. I am using a water gauge on the boiler, and the four fittings on the top are safety valve, goodall valve, throttle (steam outlet) and gauge. So if I read your post correctly, the water fill bush on the Midwest boiler is the same thread as a Wileco safety valve? That could be a handy thing to know.

I would say that I'm back, but I didn't go anywhere. I had to tend to some house repairs that were left over from Ivan. Still not quite finished but I needed to get back to my train bench and try to get things moving again. I have been at a slowdown because I needed to machine a throttle valve. I have not run a lathe for about 20 years, and needed a little refreshing. But I have made my throttle valve this weekend. First picture is the needle during machining. It is turned from 1/4-inch brass hex stock.



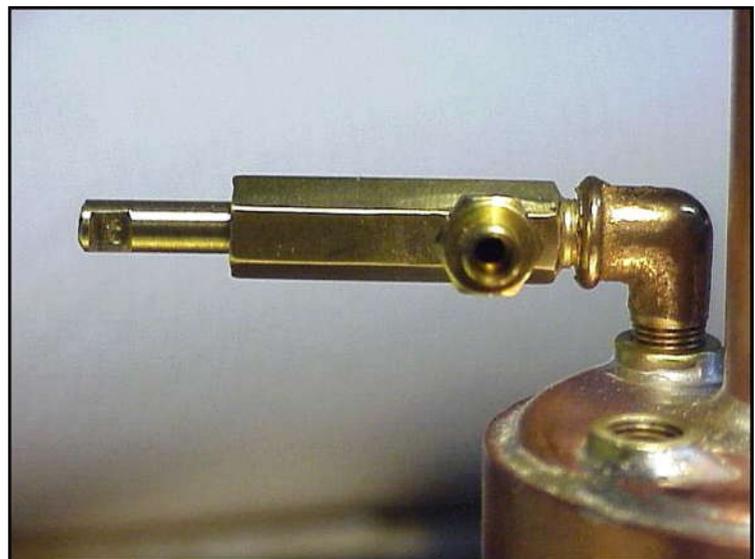
Next picture is the needle finished with o-ring.



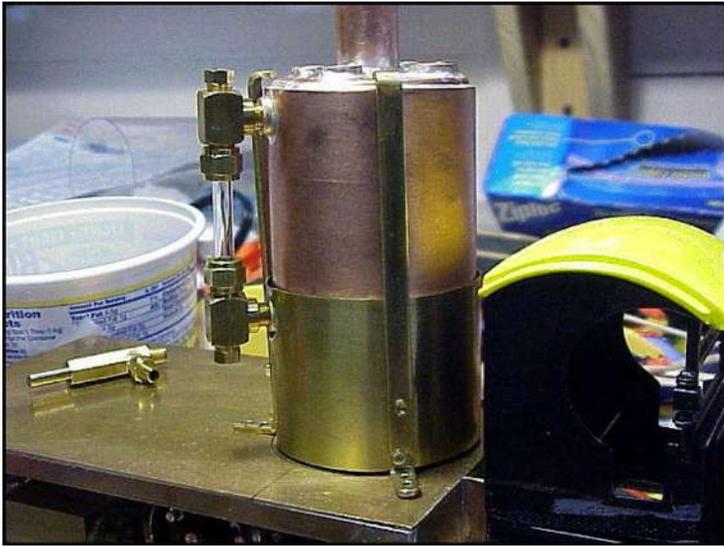
Next is the body of the valve. It was made from 5/16-inch brass hex stock. Threads on the needle and inside the block are 3/16" x 40. Mounting threads are 1/4" x 40.

And finally the finished valve temporarily threaded onto the boiler.

Hopefully I can do an operational mock-up now to see if the boiler will run the two Ruby cylinders. Onward we go!



Took a little time today and worked on the pirate's rail truck. Since the throttle valve is finished I decided it was time to put he boiler together and test it.



The first picture is of the sight glass mounted to the boiler.

I did not use any sealer on the threaded fittings yet since I am not sure that this is the final configuration of things.

Next I soldered up a siphon for the gauge.

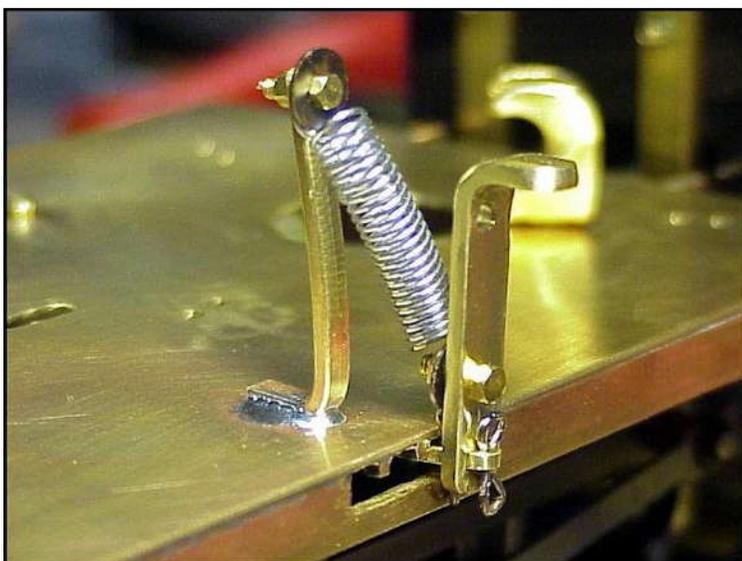
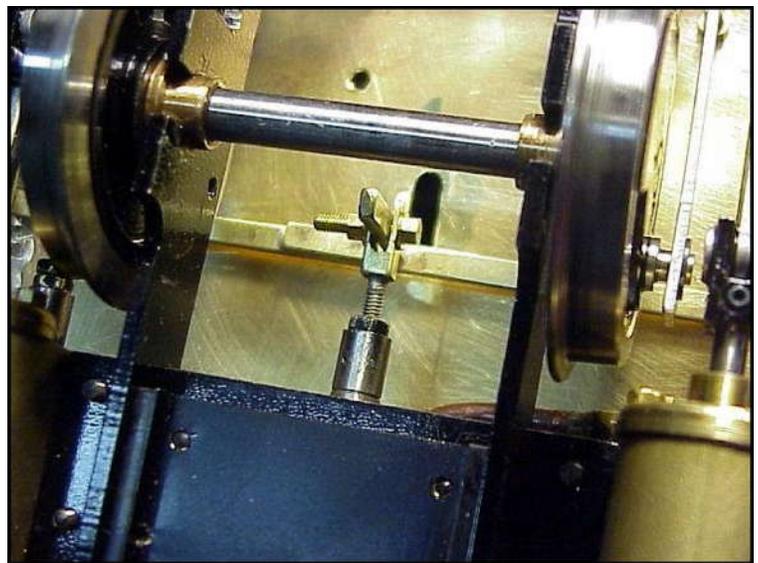


Then I installed the "Jim Sanders" safety valve and goodall valve. Now it was time to see how the burner would work. The hole in the bed under the burner did not supply enough air for the burner so I decided to add a series of vents around the shroud under the boiler. Since I was sort of in the dark about what this burner would need, I started with seven 1/16th inch holes then increased them to 1/8 then 3/16 and finally 1/4 inch. At this point the burner seemed to be burning very clean and hot.

So I filled the boiler and lit her up. Steam came up in about 3 minutes and climbed to 35lbs and the safety released and kept her at 35lbs. A little seep on several of the threaded fittings, but the boiler was keeping up enough to regularly blow the safety. So I cracked the throttle valve and bled steam off into the air (no running gear assembled yet). And the boiler kept the pressure up with no problem. How nice it is when your first boiler makes steam! Time to assemble the cylinders and valves, build some linkage and a lubricator and see if the boiler will keep up with two stock Ruby cylinders. Much more to come!

Well I got some time to work on the truck. I assembled the cylinders and valves and started working on the reverse linkage and the shifter. (I figure that "trucks" don't have Johnson bars, so I built a shifter.) Since I want to try and have some cargo space in the bed of the truck, I wanted the shifter to be mounted on the side of the bed. First I built the linkage to connect to the reverser valve.

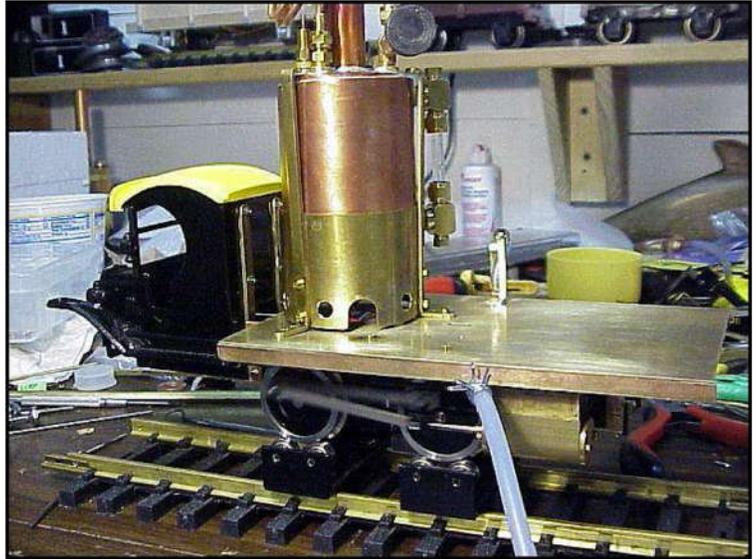
I know this is hard to see, but the next time I take the bed off the chassis I will post a picture with no cylinders and drivers in the way.



Next I built the shifter into the side of the bed.

Then to make sure everything was working properly I ran an air line to the reverser and tested the running gear.

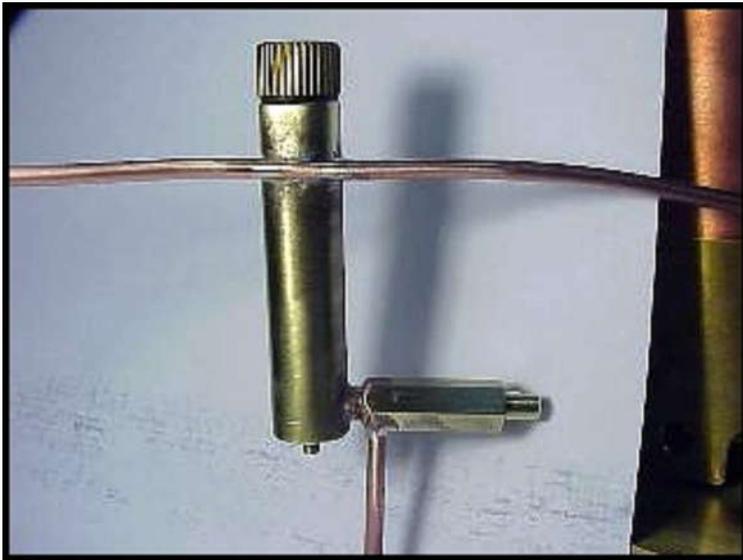
My next project will be modifying the leftover Ruby lubricator and plumbing the steam line. Then I can test the boiler with the cylinders and see if it is big enough. If that goes well, I will build a fair size fuel tank to fit under the back edge of the bed. More to come!



Worked over the original Ruby lubricator today. The first thing I did was to unsolder the old steam tube and cut a length of 1/8 inch copper long enough to go from boiler to reverser. I drilled a new smaller hole for the steam/oil transfer. The old tube had a .023"-inch hole, the smallest drill I had is .019 so that's what I used. Here is a picture of the old lubricator body with the tube removed, and the cut out cleaned up for the new tube.

Next I turned a small shut-off valve to make a lower drain on the lubricator. In the picture from top to bottom; the old body with a hole to mount the valve at the bottom. The body of the valve. (Drilled for drain tube) A short length of copper for the drain. The valve needle. (Threaded 8-32) The longer piece of 1/8-inch copper (steam line) is not picture here.





Next I soldered all the connections and cleaned everything up.

Next I fitted the inlet tube to the boiler throttle valve and soldered on a 1/4-40 connector, and installed the lubricator.



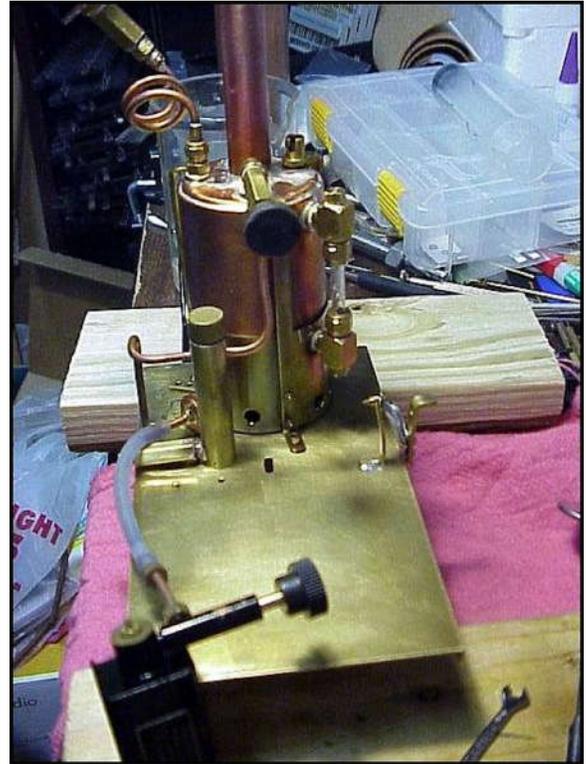
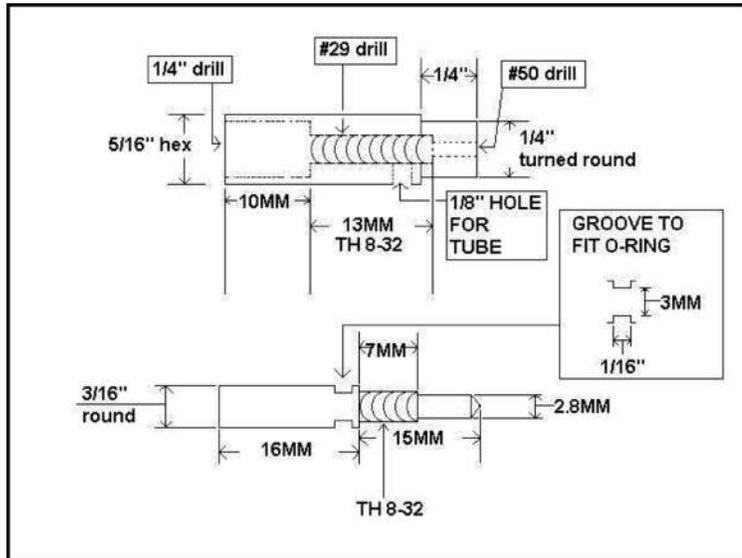
That's it for tonight, my only niece is getting married tomorrow and I need to get a few hours sleep for the week. Next task will be to route the outlet tube to the reverser valve and solder on a connector. Then I will jury rig the stock Ruby fuel tank to test everything. Lots more to come!

Howard Maculsay:

Larry, it's coming along really nice.... great work. I'm going to be making a valve or two pretty soon. Not having ever made valves from scratch, I'd really like to get a dimensioned sketch of your lubricator drain valve, both the body and the needle valve, if possible.

Hi Howard, I don't plan things at all so I made this drawing "after the fact". I hope this is enough to work from. I used 3/16 inch round for the needle, and 5/16-inch hex stock for the body. Size of components was chosen for practical reasons. I figured that 8-32 was about as small as would be strong enough in brass. So the 2.8MM end of the needle was as large as would clear the 8-32 die. Since I am a jeweler my only accurate caliper is metric, and I used it

to layout the lengths while I was turning the needle. So there are mixed measurements galore. When I made this I did not think I would be trying to duplicate it or I may have drawn a plan first, but probably not. If you need more info let me know. The "point on the needle was left fairly blunt to be more durable as this is a shut-off only valve.



Well! Got several loose ends tied up and ran a steam test on everything this weekend. Lots of small problems that were worked out, and a successful BUT disappointing first steam. Everything worked as it should, but the boiler does seem to be too small or not efficient enough to maintain pressure with the two Ruby cylinders. This was somewhat expected from several long "chats" with Larry Herget about his experiences with similar boilers. I decided early in the process that I would proceed as if I knew it would work because the entire truck project is an education for me. Larry suggested a couple of "remedies" that might help, and I will probably try them. This may slow progress down a bit but THAT'S LIFE! So my next post may be slow in appearing. But the truck will be made functional one way or another, and WILL be at Diamondhead 09!

Bill Megill Jr.:

Larry, I am not sure with the ruby, But if you do not need full power can't you just adjust the valve cutoff to save steam? That is if you will not be pulling much.

Hey Bill, If you are talking about cutting back on the steam valve, it is still not enough to overcome the bad match-up of boiler and cylinders. I am REAL new to this hobby and while I am enjoying it, I am doing a lot of learning by making mistakes. Where I erred was that assuming that the volume of different types of boilers made them comparable in output. This boiler size was based on the volume of water in the Ruby's original boiler. But it turns out that a single flue vertical boiler is not nearly as efficient as a single flue horizontal boiler. So what I am looking at now is an engine combo that can't hold a head of steam at the slowest speed I can make it run. I am going to try a couple of things before I make major changes, but I am afraid that the combination is just too far off to work well.

As Dwight would say; HEHEHE What a difference a day can make! Did not do any finish work or even smoothing of corners, but today I "temped" up an "outside flue" on the boiler. This was from a suggestion from Larry Herget about improving efficiency of vertical boilers. Still needs work but I needed to know if it would make a difference. Here is a picture of the top of the boiler. Basically it's a wrapper that is spaced out from the boiler to let the burner heat the outside of the boiler as well as the flue.



Then I rigged a Ruby fuel tank to the truck bed with some clamps.

And took her outside and fired her off. Ran a whole tank of fuel through while she ran around in little circles. I added water through the goodall once. Kept a fair head of steam (20-25 lbs) without any problem. Maybe, just maybe this will work out!



Howard Maculsay:

Posted By redbear on 09/02/2008 8:53 PM

As Dwight would say;

Basically it's a wrapper that is spaced out from the boiler to let the burner heat the outside of the boiler as well as the flue.

Well, just think what will happen if you insulate that outside wrapper and even keep more heat surrounding your boiler. Nice job, Larry.

Hey Howard, Yes that is part of the finishing plan for the wrapper/flue. Also will add a spiral flue retarder to "grab" a little more heat from the fire. Then maybe I can get her to steam well enough to move on to the rest of construction.

I have a few "pain" problems to deal with as well. Both of the brass linkages that thread into the valve pistons are undersized on the threads, so I think I have to make new ones. This means getting tap and die for whatever metric size they are. The Ruby book just calls them "M2", I don't know if there is only one 2mm metric thread. Any help out there?

Ryan Bednarik:

Larry, Common M2 thread size on our engines is 2mm x 0.4. There are three or four 2mm thread sizes but our size is as stated above. Keep up the good work; always enjoy your solutions to a problem and creativity. Brilliant work!

Hey Ryan, Thanks! I knew one of you guys would know the answer to my question. And thanks for the comments, I try to be as self sufficient as I can but this is all so new to me I ask a lot of questions. So some of my "solutions" were suggestions from more experienced steamers. THAT is why this is so much fun, everybody helping each other.

Gerald (steamboatmodel):

Hi Larry, I wonder if just insulating the boiler itself without the wrapper would work?

Hey Gerald, Thanks for the suggestion. During the first testing with steam I did try insulating the boiler without the outside flue. There was a slight improvement but not enough to run the truck without waiting for steam to "catch-up". This was a sort of bad and hectic test period and I neglected to list all the things I tried while testing.(bit of a panic time!) The difference with the "outside flue" wrapper is night and day. Hopefully it will be enough to squeak by with enough capacity for steam. *Thanks Larry Herget for the advice, I listen even if I am bull-headed!*

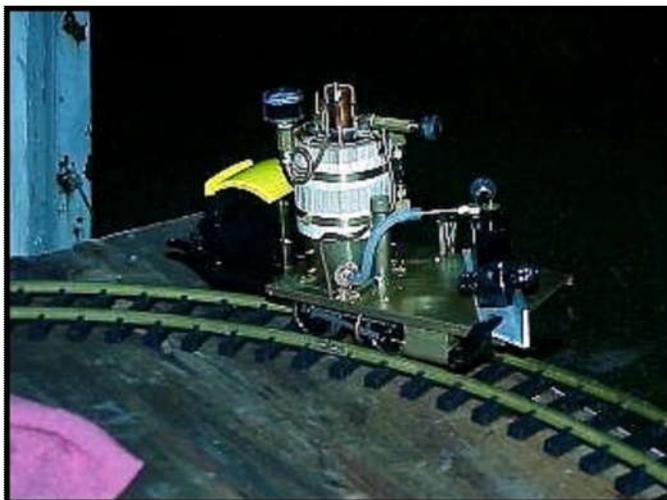
Well here we sit, pondering the route of an unwanted visitor named Ike. Feels a lot like another unwanted guest a few years back named Ivan. We have not really recovered from that visit. Such is coastal living.....

Worked on the truck a little today. Built a flame restrictor for the flue.



Built a 90-degree steam exhaust diverter.

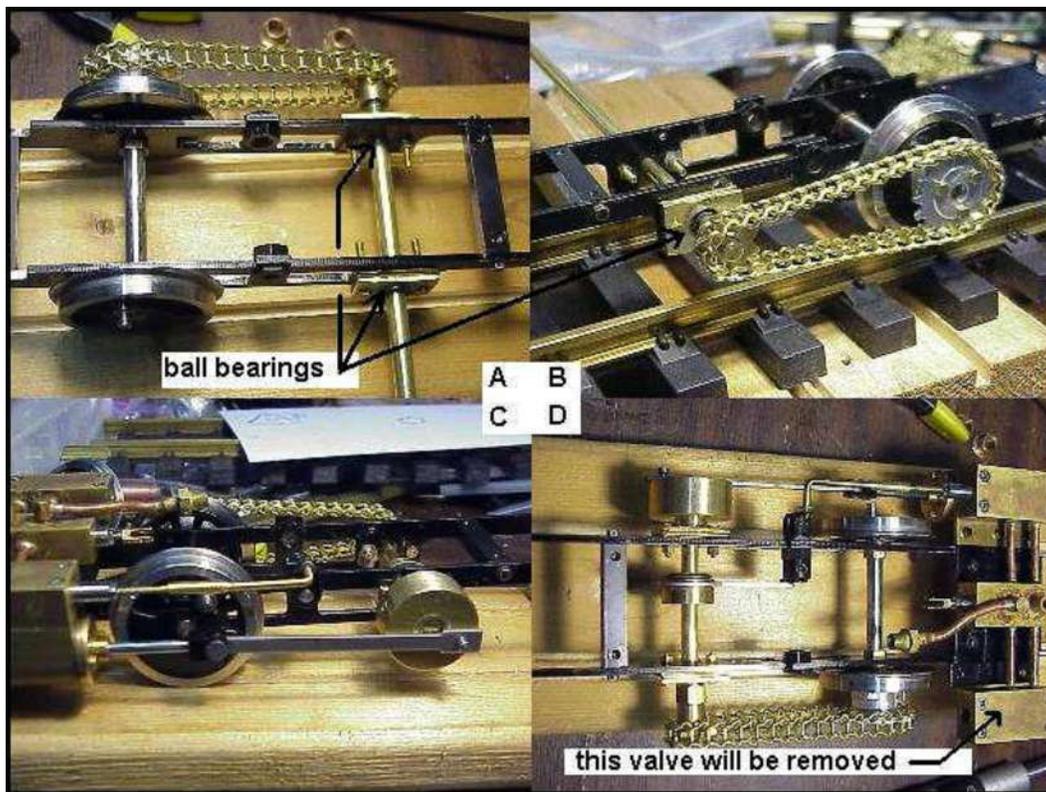
Ran an exhaust pipe up to the boiler flue area, insulated and lagged the boiler with cork and then 1/4" x 1/16" wood strips.



And finally late evening put it all back together for a test.

She did run better than previous test, but not well enough to be satisfied with the system. So now that all of this is done and looking pretty good, its time to go back to the basic chassis and make some BIG changes. I am thinking that I will do away with the forward driver and one cylinder. In place of the driver I'll put in a jackshaft with a flywheel and a sprocket for a chain to the rear drive axle. This way I can keep the frame basically as is and be a little ahead of the curve. Seems like a lot of work when I was fairly sure it would not work well, but I needed to make all of these components. I'll also end up with another Ruby cylinder to make something else out of! *Should have listened to you Larry!*

I got most of the major pieces made to convert the two-cylinder pirate rail-truck to a single cylinder pirate rail-truck. Since I wanted to utilize as much of what was built already, I am still using most of the Ruby parts that I started with. I am removing one cylinder, one valve and valve gear and one set of drivers. I am adding a jack-shaft, flywheel, and chain drive. In picture "A" I have mounted the jack-shaft in the old driver location using sealed ball bearings from a local hobby shop. I purchased some chain and one sprocket from Stock Drive Products back when I was planning to use the Midwest boiler and engine. (I made the rear sprocket and cut the teeth by hand.) The Ruby wheel is drilled and tapped for the sprocket to mount to (picture "B").



I turned the flywheel out of 1/2 inch by 1 inch brass stock I had laying about.(picture "C") The crankpin is made form an old steel axle from some plastic wheels I replaced on my ore cars. I disassembled the Ruby drive axle with the eccentrics to use one of them on this truck (picture "D").

As soon as I fine-tune the fit of these new parts and figure how to temporarily block off the valve block on the "chain side", I will air test the running gear. If everything works, THEN I will cut off the valve block and cap the lines. Then I will have another Ruby valve, eccentric and cylinder for ANOTHER project. Hopefully I can get this configuration to work!

😁 It Runs! (on air anyway)

Got all the kinks and high spots taken care of and ran the single cylinder and drive train on air tonight. I tried to do a movie but my camera just won't focus that close in movie format. (I don't have a movie camera; my digital camera will take short mpegs) So all I can show you is a still of it running in my hand. Since the reverser linkage is mounted to the truck bed, I had to hold it in my hand and set the reverser valve with my fingers. Not a pretty picture, but it did run pretty. I may not get much time this week but I am anxious to to reassemble the truck and get some steam to this set-up. As soon as I do I will post more pictures.



John Riley:

Larry, Have been watching your progress with great interest. If you are thinking of changing boiler config's suggest you look at Mark Horovitz Sidestreet Bannerworks Loco of the Month for Sept 2007.

He shows a pair of tram engines, and their boilers, which would fit well in a rail truck. He has also converted a single Ruby piston/cylinder to a double acting ossie. Since you have a spare this might be a future project. My own experience with a small horizontal porcupine pot boiler fired by a ceramic burner originally designed as an after market upgrade for a Mamod feeding a two cylinder ossie steam motor geared a la Larry Herget has been quite satisfactory. The horizontal boiler also can be hidden in a truck easily.

Hey John Riley, Thanks for the comments. On this truck I am going to keep the boiler as is. I have enjoyed building this so much I am going to build at least one more steam truck (probably two more!). Since I cut out the "extra" valve block I have an extra cylinder and valve to work with. So I will have to learn how to build a reverser valve! Have not thought about boiler for

the next truck yet, so I will reserve comment on that one at this time.(well almost,..... it will probably be horizontal) Before the next truck I have another very complex Ruby Kit bash underway. No announcements yet, but lots of gears involved!

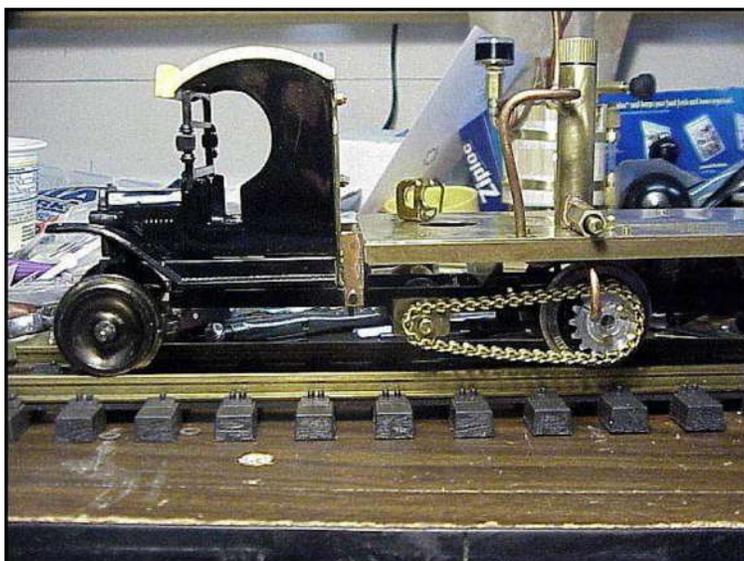
Winn Erdman:

Larry, Too bad, it was looking so good. I think your solution is really neat. It should have the good side effect of slowing the speed. To plug the extra valve can you just reinstall the valve slide and hold it in neutral? Good luck, I think this thing would be cool to watch it run. (Don't post a video just for me, I can't get it on my puter anyway) Sometimes chasing problems can be a pain, but it really brings out the engineer in you. It feels so great when you come up with a solution that works. I hope the Big Blows don't get you!!!

Hey Winn! Good to see some new "Bogie Posts"! I worked on all the rough edges of the moving parts and reassembled the single cylinder set-up today.

P.S. Winn, I cut out the valve block so I would have a complete cylinder assembly for a future project (missed that comment in my first read of your post).

Worked on the pirate truck again today instead of working on business. Have to play catch-up now! BUT the truck is now on four wheels. I built the front axle assembly today. Simple and sturdy.



And here is a shot of the truck showing it's new stance as a four-wheeler instead of a six-er. Oh Well, live and learn! And boy have I learned a lot on this project.

It will be several days before I can work on it again.

😲 It Steams! 😲

I put all the pieces (that are made) back on the truck and clamped a Ruby fuel tank to the truck bed. Filled everything, lubricated everything and fired her up. Tried to catch the safety valve popping but I never got it.



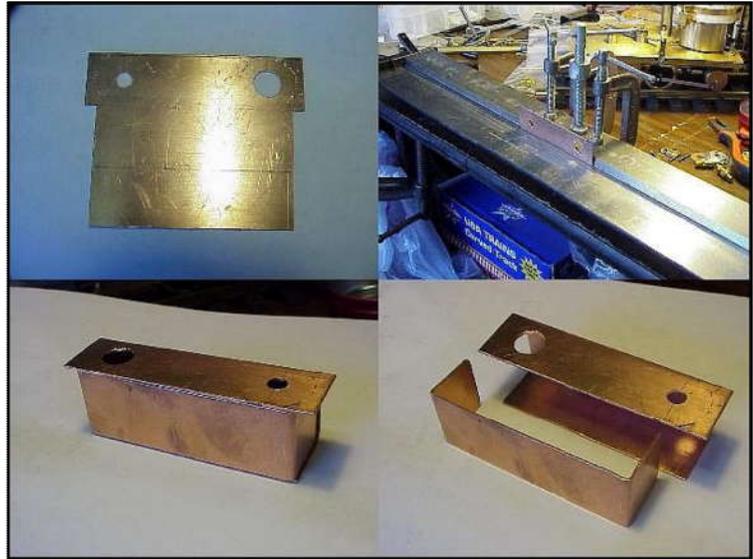
Once she was up to the safety (35lbs.) I rocked the shifter to clear the condensate from the cylinder and off she ran. Still a lot of fine-tuning to get everything just right, but the mechanism is proven now. Will self start in forward, but I had to nudge her to get reverse. I am going to build a fuel tank next and then start on the trim and decor. I made a short low quality video of the first steaming with the one cylinder modification.



Here's a video of it.

Today I built the fuel tank for the truck. I bent some .039" thick copper into two L shapes, drilled the appropriate size holes for the gas valve and the filler valve, and hard soldered it together. The first picture shows the pieces as they were made.

The next picture shows the finished tank before cleaning and painting.



The gas valve was made almost exactly like the lubricator drain valve earlier in this string. The only difference is the needle has a long tapered point to allow adjustment of gas flow, and a threaded fitting for the fuel line to the boiler. The filler valve came out of a cheap butane pencil torch (had for years and never used). I think this is the last major component on the truck. Now its LOTS of little pieces and parts.

I got the fuel tank mounted today and did a short steam on the bench. Here is a picture of the tank mounted.

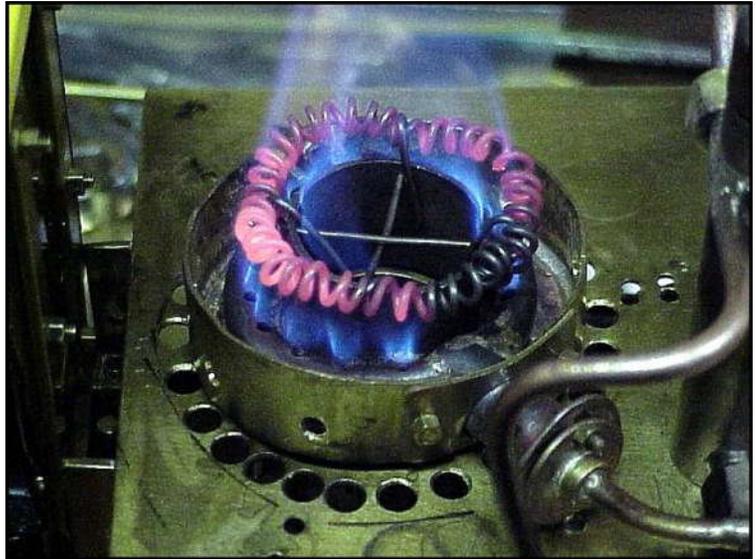


Gerald (steamboatmodel):

Hi Larry, Did you do a hydrostatic test on the fuel tank? I was told to test any butane/propane tank to 350 psi. A fuel tank is a pressure vessel the same as a boiler is and should be tested to twice the working pressure. a 70/30 or a 60/40 butane mix have pressures of 145 and 165psig (10 and 11 bar) respectively. Straight propane will reach 260psig (18 bars).

Gerald, I do not have any way to "hydrostatic test" the fuel tank. I leak tested it and pressure tested by dunking it (full) into hot water.

I can't believe it has been a month since I posted anything on the railtruck. I have only worked on it a little now and then; my business is having a tough time in this economic environment so I have been staying focused on survival. Today however I have worked on getting more heat from the burner and I built handles for the steam valve and the lubricator drain. In working on the burner I realized that the lubricator is uncomfortably close to the boiler for adding oil while engine is hot.



So I soldered a piece of 5/16 hex stock to the cap to allow a wrench or nut driver to be used. On the burner I figured I needed more air to get proper combustion of the fuel, so I added a circle of holes in the base around the burner. Then I made a "cup" for the burner to keep the flame contained and aimed at the boiler bottom. I added a coil of stainless wire to act as a radiant heat source. The first picture shows the modifications to the burner.

The next pictures show the new handles.

I think everything will work out OK now. On blocks I got several long runs by adding water to the boiler, and was able to keep steam up at 30 lbs. Lots of adjustments and a small leak on the lubricator to deal with. Hopefully I can set up a small track this weekend and test it then.

Well after a lot of fiddle-factor and adjustments I got the truck to run 14 minutes with a few pumps of water in the goodall valve. So I think I will move along with the rest of the truck. I still have to decide if I want a pilot or just a beam on the front, mount a beam and coupler on the rear, build a stake body, replace the boards on the boiler, (during the burner mods they got a little singed...OK they caught fire a few times) and then I don't yet no what else will go on it. Here is a short video of the truck running, still low quality stuff; I can't buy a camera right now.

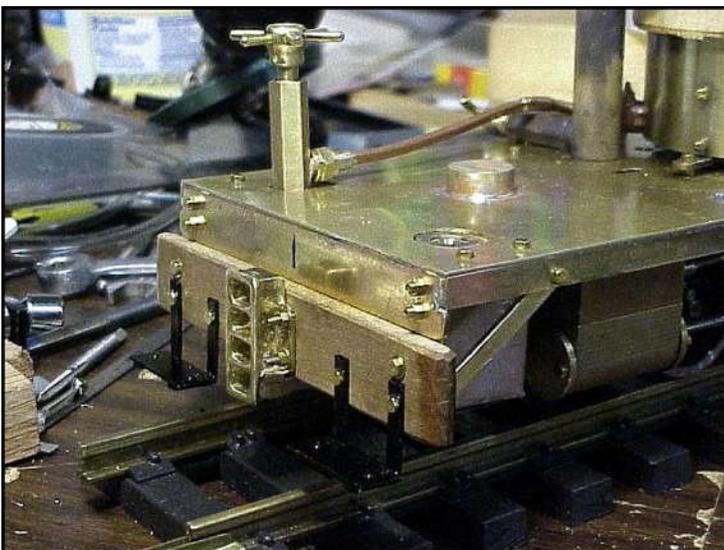


Here's another of the action.

Semper Vaporo:

Don't say, "caught fire", say that is expertly applied "weathering." The words are, "I meant to do that!"

HMMMM Weathering! Of course that's what it is... I just forgot I did it that way! 🤔



So after I ran the truck today, I worked on the pilot beams. The rear beam, braces, coupler and steps are finished.

I ran out of time and energy before I finished the front beam. I have laid out what I am building and cut the beam itself, and started the bottom bracket. Maybe tomorrow if there is time available.

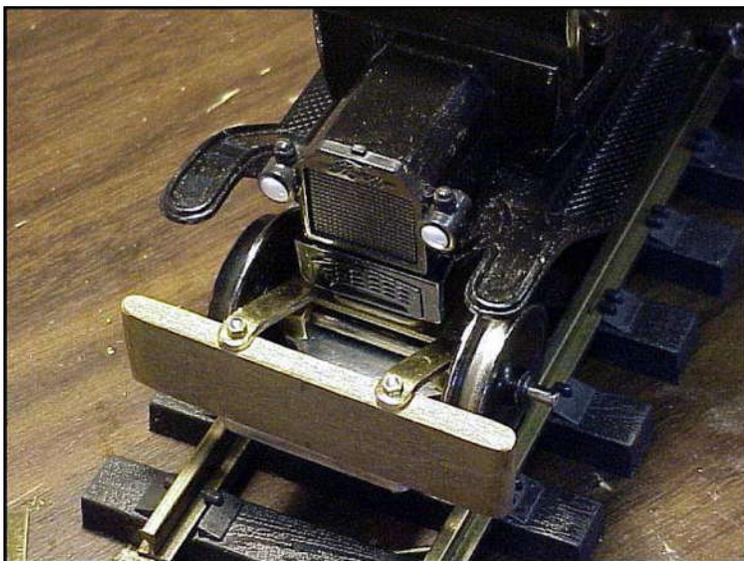
I think things will move along now, but WHO KNOWS?



Howard Maculsay:

You're getting to that point where you can see how much you rail truck will haul, right??? Really looking great. The radiant burner coil is very clever. I'm anxiously waiting to see what treatment you give the truck bed...wood stakes and rails or solid brass sideboards or.... Again, nice work.

Hi Howard, I am glad to have come to the point where I know the boiler-engine combo will pull a car or two. My choice of this combination was flawed from the beginning, but I am sneaking around the problem. I have one special car in mind to go behind the truck.... a dynamite car for the pirate miners! I am now at the point where I do not want to add weight to the back of the truck, so anything behind the cab now has to be as light as practical. So it will likely be a wood stake body, but I have not started it yet.(meaning no plans yet!) Still OK for weight on the front, but I don't think I will use a "cow-catcher" pilot. Just a beam with a coupler, can't see steps even... nowhere to step to! Maybe a few tools or such...



Today I have only had a little time this afternoon to "play with trains", but I did finish mounting the front beam.

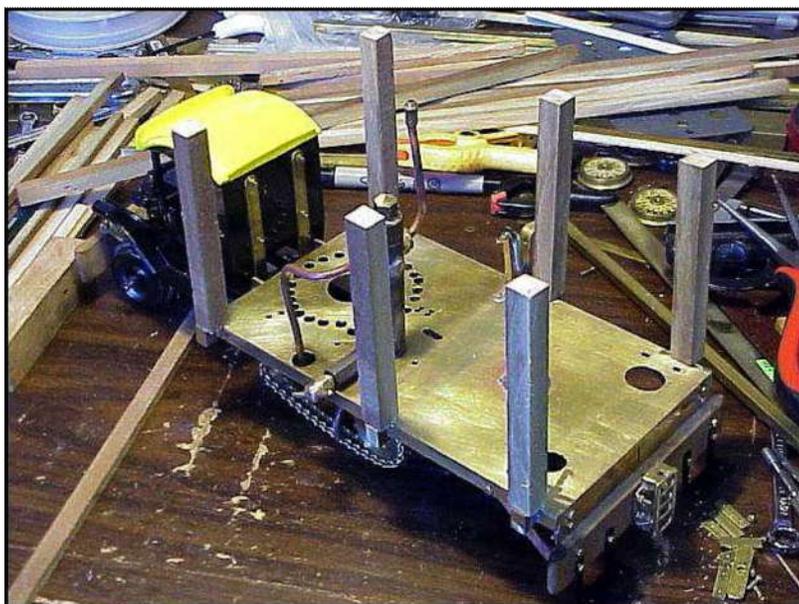
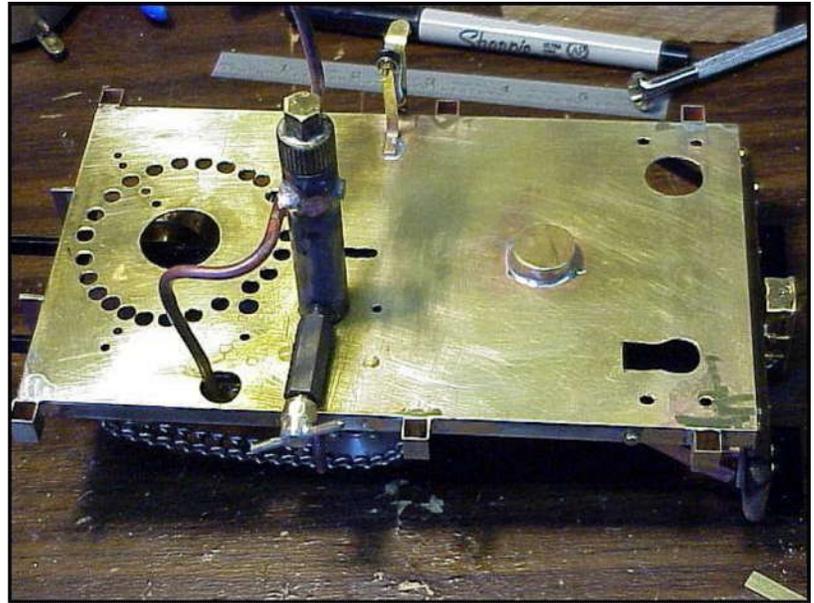
No coupler yet, I made a pattern to cast a single pocket link and pin coupler but have not cast the plug or made the mold yet. The coupler will be in my next batch of castings, along with a journal for building my Dynamite car. I'll post pictures when they are cast. I hope to get back out here after dinner and get started on the truck bed... but we'll see what else pops up and demands my time.

Henner Meinhold:

I have to agree with Howard! The radiant coil is a brilliant idea! You should reveal some of your secrets about making these nice castings....

Hi Henner, Thanks for the comment. No secrets to my castings, I am a jeweler in "real life" and have been doing lost wax casting for over twenty years. I have all the equipment for modeling in wax, casting, and making vulcanized rubber molds to do duplicate casting. So far I have only done a few train related items in brass, but as I need things I will make molds if it is practical to do so. I have been thinking of building a sterling Loco for a long time.....

This is the first update on building the stake body on the Pirate railtruck. First I disassembled the bed down to the point where I could solder on the edges of it. Then I cut some 1/4-inch square brass tubing to use as stake pockets. I soldered them to the bed.

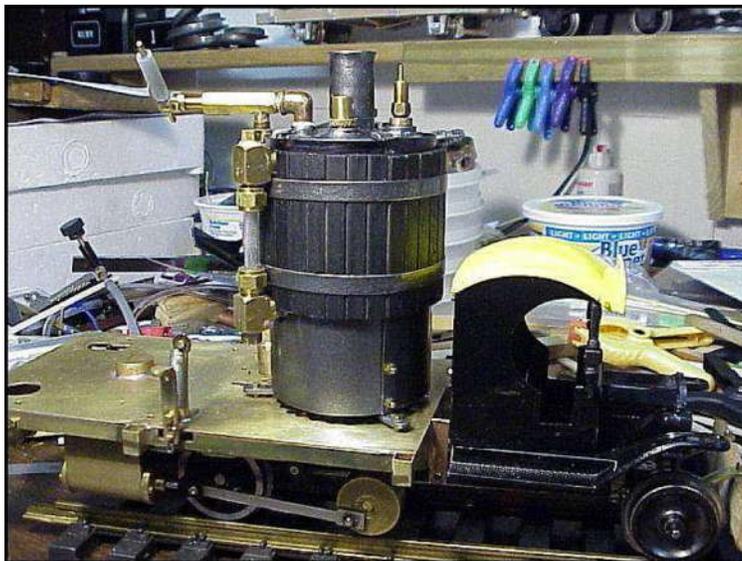


Next I sawed up some stakes to fit the pockets. I know that these are way over scale, but I do want this truck take some abuse. Later they will not look so big I hope. 😊

That is where I am at the start of my day. More later, but maybe not today (life keeps intruding on the train work).

Well I got the bed built! The sides are all wood, but because of the heat and "occasional flame" issue I built a brass front-gate. This will keep the diecast cab from getting scorched, I mean "weathered"! hehehe

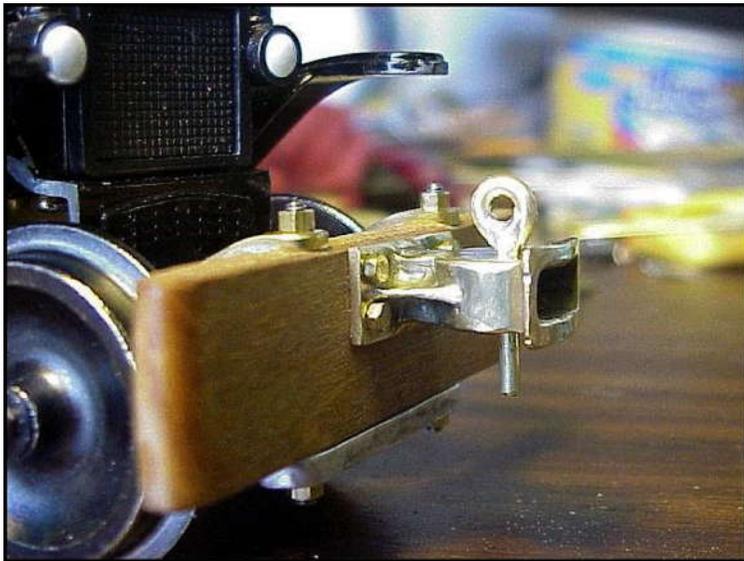
Getting real close to calling it ready for paint. Time to take a step back and consider what else the truck might need.



I still have not cast the front coupler, so I decided to start the painting process. First I cut new wood for the boiler lagging, since the first ones had been "flame weathered" so badly. Then I disassembled the boiler and painted all the pieces, and reassembled it.

Then I painted the stake body the color the truck will eventually be painted.





I am still here! It has been a long time since I have taken any time with the rail truck. I finally got the coupler cast and made a mold from it to reproduce it. Hope to get a lot more done on the truck before Diamondhead! here is the coupler;

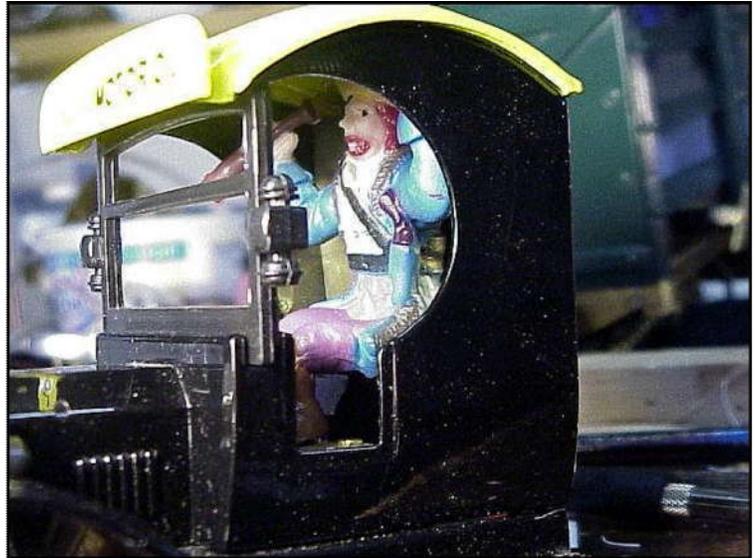
Will post more as I get things made.

Worked on the truck some more today. I found some pirate figures! This poor fella has a BIG hook for a left hand, but I figure there's no steering in a rail truck so he'll be all right.



Could not get him to stay bent even with heat, so I drilled up through the heels of his pointy-toed boots all the way up to his chest and put some brass rods in.

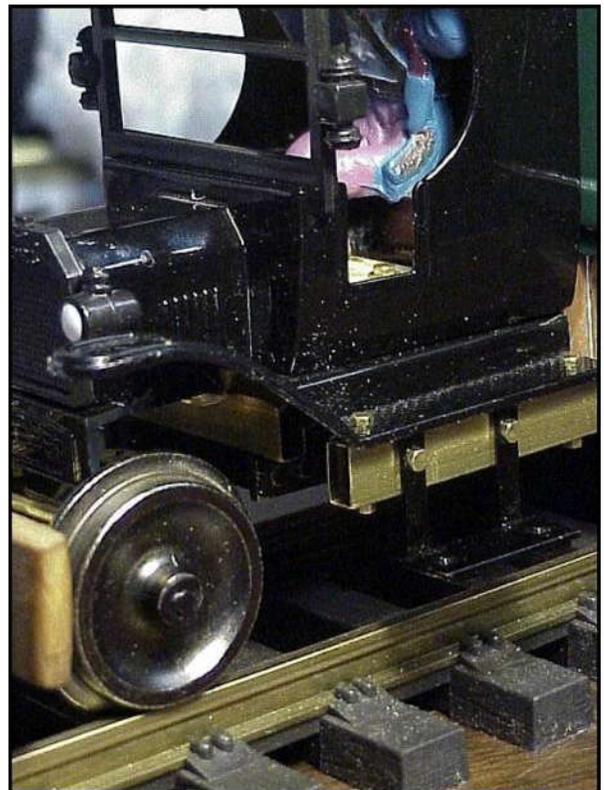
Then I was able to bend him into a sitting position and have him stay. So I built a floor and a seat back and now I have a RED BEARDED pirate in the cab of the truck!



More to come!

Got a little more done today. Added some steps for the short-legged pirates to climb up in the truck cab (using up more Ruby parts 😊). Also took care of the axle stubs on the front axle. Several people have asked me about them, long-term plans are to cast some spoke wheels. That does not seem to be happening very quickly so I cut off the stubs.

More as it comes... starting to think paint!





I am looking forward to seeing the entire Tallahassee bunch in a few days. I decided that it was time to start the "Krylon Hustle". Per Bob "diesel" Pope that means I am ready to paint the truck. Took her apart first.

Then I started with the cab; here is the cab apart and sanded.

And now it is barely warm enough outside to spray some paint.



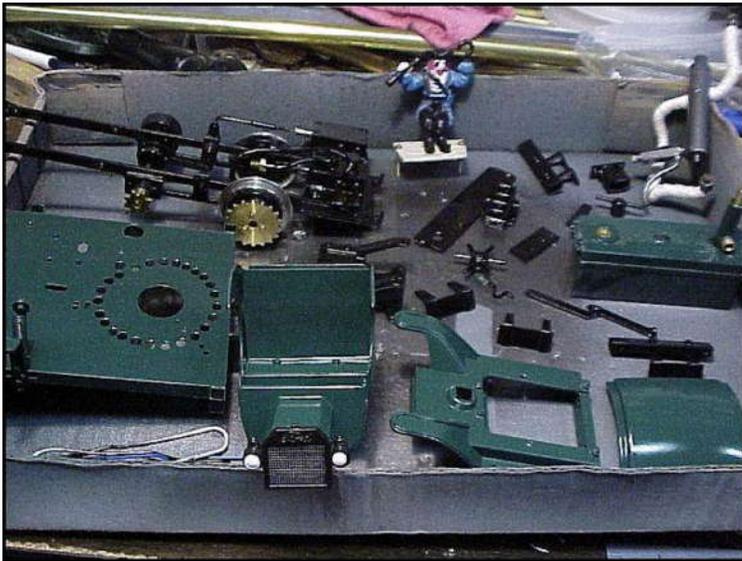
Got some parts painted and got one batch baked, in the picture the top left group (the cab pieces) have been baked. I bake the parts for two hours, so baking is the slowest part. More later!

My plan is to have it pretty well finished before Diamondhead.

Mark Scrivener:

Looking very good. I'm lovin' this thread. I'm also jealous as I have a ton of painting to do but it has been too cold and humid to risk a botched paint job.

Thanks Mark, It has been too cold to paint for a couple of days (today started out at 38 and reached 60 about 2 PM) and now there is rain in the forecast for the next 4 days. So I painted as many pieces today as I could. I cheat a little bit also; I spray the paint on warm pieces (warmed with 100 watt bulb) outside and immediately bring it into the shop. This way I can use Krylon down to 50-55 degrees F without blushing. It does make for some fumes in the shop but I have 4 separate vent systems installed, so fumes are not bad. Wish I had space to put in a small paint booth... oh well I guess I'd rather buy more steam parts. We do what we have to!



All the pieces and parts are painted and baked, and the reassembly has begun. I decided to calm down the purple, blue and yellow outfit on the pirate while he was out of the cab. Here is where I am starting my weekend.

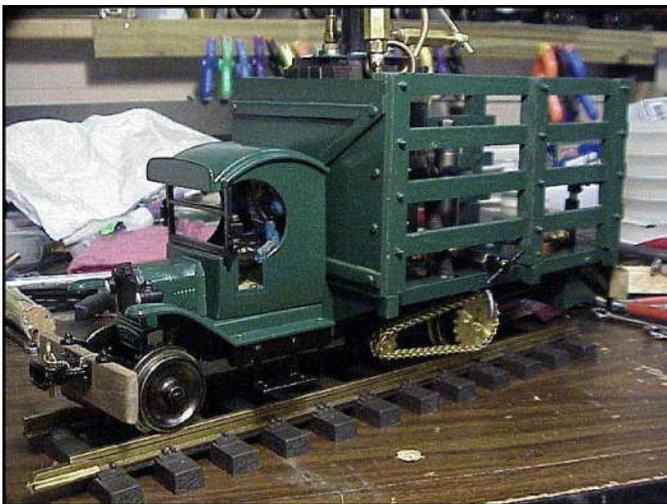
My goal is to get her assembled this weekend. lol

It's not finished yet but I have made a lot of headway on the reassembly. Here is where I am at the end of my Saturday workday.



I would have had the boiler in, but the insulation on the steam line to the lubricator comes a little bit too high up the line and keeps it from aligning with the throttle valve. Not a big problem but the paint on the insulation is wet, so it's a good place to stop today.

Looks like the pirate rail truck will go to Diamondhead with a paint job. I got all the pieces back together and have none leftover. (I am pretty sure that's a good thing!) I will try and get some lettering done but right now I am just happy she is back together. I will wait a day or two before steaming to let all the paint settle down. That will still give me some time if anything is not assembled right or if???? Note ol' redbear in the first picture!



I got some logo decals made and installed today. From the looks of it I think the pirates are planning on hauling some dynamite to their mine.



Come on now these pirates may not be wrapped too tight, but even they wouldn't stack dynamite next to a boiler! That's why there are couplers on the truck! Gotta go pack the truck for Diamondhead. See you there I hope. Meant to stick a still in here.



Here is a short video of the truck pulling one and then 5 little cars.

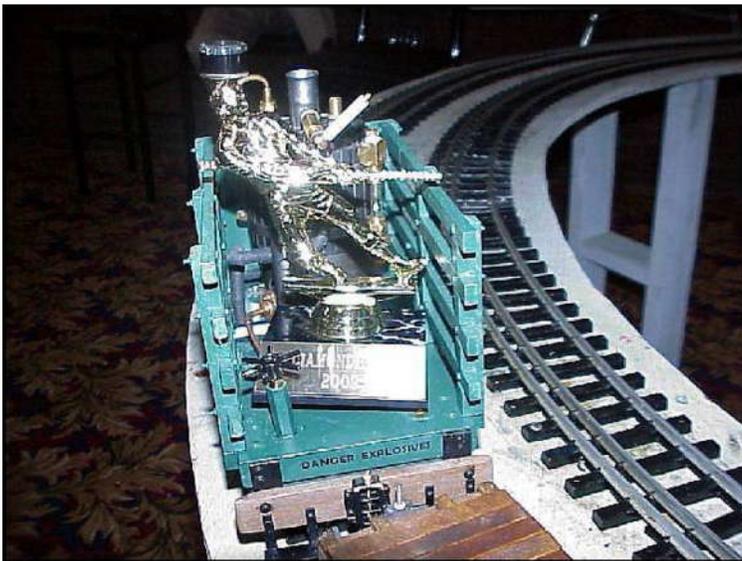
POST DIAMONDHEAD 2009

The pirates went to Diamondhead and had a FANTASTIC time. I went over on Tuesday and just about ran the wheels off the truck.

Here is one of the first runs I made with the truck.



Every time I ran her she ran better, by Thursday night I was topping the boiler off four times with the goodall and running right at thirty minutes. Late one night (all a blur by now) Jim Sanders and I ran the truck on a four foot diameter circle with cars all the way around to the front coupler. I was pleasantly surprised that she had plenty of power to do this so off we went to a bigger track and the truck made laps with twenty cars. I will post pictures and/or videos when I receive them (I was having too much fun to remember to take pictures!).



I entered the truck in the drawbar contest on Saturday and won my class! (single axle) here is the truck running Sunday with the trophy in the bed.

Of course the fact that I was the ONLY entry in the single axle class may have helped me win! ??

All in all a wonderful steam-up for the pirates. Many thanks to Jerry Reshew and all those volunteers that made the show run so smoothly.

I have not done anything to the truck or the Ruby Mason since I returned from Diamondhead.

This is what I have been doing instead.



The truck ran much better than I expected at Diamondhead and I figured out that part of the reason was that I did not have a track to run on here, and could not really judge how things were progressing. So I am building a small (30 feet) test track right outside the door to my workshop. I have several modifications to make to both engines, and they are the type of changes that need to be run for comparisons to previous set-ups. So... I am putting up this track with any of my "un-allocated" time. I plan on moving the exhaust on the truck into the boiler flue to try and clean up it's messy running habits. I am also going to build a water car to pull behind the truck and pump water to the boiler for longer run times. I will probably build it so that it will work with both and possibly any other engines I build. I picked up a Regner electric water pump at Diamondhead. This year it was worth the trip to Diamondhead just for the "Flea Market". I will start a new thread when I start on the water car. I hope to be posting videos of the truck at Diamondhead soon.....



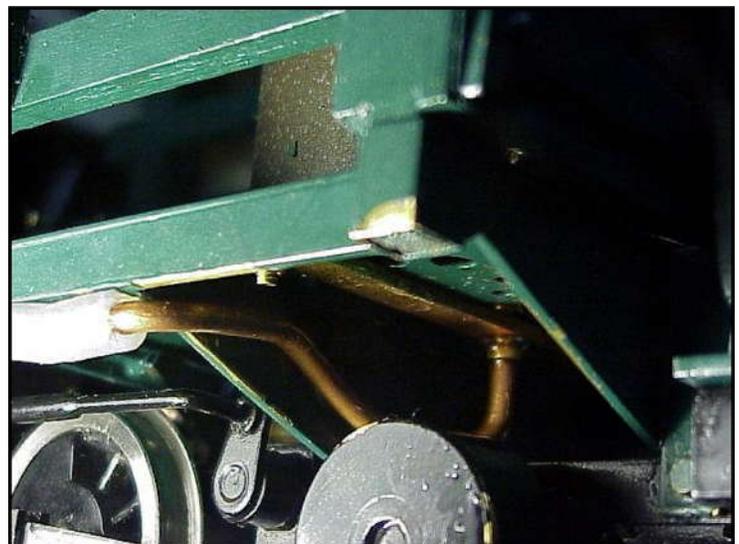
I got my first track finished today. A small track right outside my shop door for testing things. Track is about 29 feet. Here is the first run on it with the Pirate Railtruck.

I did another video but it is so low resolution I decided not to put it on here. Hopefully I will get some Diamondhead footage sent to me soon and will post that.

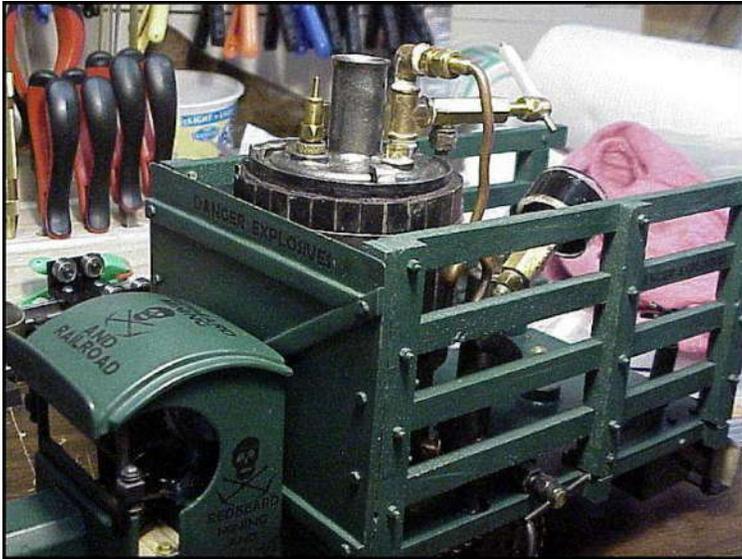
I got the first of the videos from Diamondhead today. Here is a clip with the rail truck pulling 20 cars. THANK YOU Jim Sanders! ! !



I can't believe it is March already! I have not worked on anything steam powered since I put up the small track... til today! The only real issue I had with the truck at Diamondhead was the amount of water it dribbled out on the track. Every time I ran the truck I chased it with rags. So as much as I liked the novelty of the "tailpipe" I have opted for a cleaner running truck. So I moved the exhaust to the flue. I built a brass sleeve to keep the pipe centered and then ran copper to the sleeve. Just ran it in the dark to check it out, and it got rid of the "wet track" problem. Here are a couple of pictures of the exhaust tubes. From the "chain side";



And from the "flywheel side": I need to do a little "tuning" but it works pretty well already.



It's been a while since I have had any "steam time", but I got in a little this evening. To prepare for the water car I moved the steam line to the gauge to free up a fitting in the boiler to inject water. Hard to see in the picture but it is plugged right now. Ran it for a while today, I need to work on the blast pipe still. Anyway here is a picture of the re-routed gauge line (also got the gauge down into the bed a good bit).

That's it for today, hopefully some more time tomorrow.

I finally got the new decals on! WOW! Thanks again Stan Cedarleaf! Here are a couple of shots (while the clear-coat is still wet).



Here is one more shot of the T-1 Rail truck running. I think that she is finished now, so unless there are any unplanned changes this will finish this log. Time to get rolling on the next one! Keep watch for what the pirates come up with next!



I did not expect to be posting anything else to this log... but here we go. I borrowed a camera to take pictures and while learning how to use it I took a video of the T-1 on my test track. So here is I hope a better video than I could do before.



Dragging up a post from the past!

The only real issue I have had with the rail truck since I finished it has been the filler valve for the fuel tank. The valve I used was an un-vented valve from an inexpensive butane mini-torch. The valve worked well but as it was not vented the only way I could be sure to fill the tank all the way, was to crack open the fuel valve and fill the tank until I heard liquid coming from the burner. Since the tank is lower than the burner, this meant I was always starting with an over-full fuel tank. This made for some odd lighting procedures where it appeared that I was setting the whole truck on fire. This year at Diamondhead, Richard Jacobs had Accucraft filler valves in the dealer room... so I decided to take care of this problem. And here it is 5 months later and I am installing the valve. Jim Sanders from Wee Bee Loco made me an adapter to put the valve in my tank. Thanks Rich and Jim!



Here is a picture of the new valve installed and the old valve on the left.

Movie shortly!



Well, here is a try at embedding a video.