HCR NEWS
HORSELESS CARRIAGE REPLICA NEWS

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HORSELESS CARRIAGE REPLICA NEWSLETTER

A Publication dedicated to the reporting of news, events, articles, photos, items for sale, etc, having to do with replica horseless carriages.

Published when articles or info becomes available & "Special Issues" when necessary

2015 New Years Issue

Hello everyone,

In past years the HCR News New Years Issue has contained information for the upcoming Pre War Swap Meet that takes place in Chickasha, Oklahoma on the second weekend of March each year. Recent postings on the Model "T" Forum, centering on this year's swap meet, about new rules possibly being imposed on the vendors entering the swap meet grounds, caused apprehension. This Swap Meet, under normal conditions, is one I would never miss, however the decision to attend will have to wait until a firm date is decided upon and rules are settled. The issue appears to be about parts exchanging hands between the individual vendors while waiting in line to enter the grounds.

In This Issue *Page*

I will have to update those of you planning to attend through the HCRB Group Blog as new information on this meet becomes available…Lee

Making Steel Parts Resemble Castings

by

Len Casabura

We are all trying to make our HCR's look as original as possible. I decided to share on how I replicate the cast iron look on mild steel work. I have been replicating cast iron for a long time. Being I used to build and rebuild antique automotive radiators, which most had cast iron mounting and hose connections which were susceptible to rotting and in need of reconstruction or being completely built new. Most carriages in the 1900's era had cast iron components ranging from steps, hanger brackets, spring perches, light mounts, etc.

The first step is to take in consideration on how you think the piece was made in a mold, looking at a similar piece made by casting is a start. When another piece is not available you can visualize how it was done (guess) and go by your first guess it's usually right. This will help if you want to get crazy and make mold markings and cuts where the mold joints were even part numbers cast into the piece.

Second step is to avoid sharp corners unless machining is needed on the part usually 1/8 inch radius is the normal. Think about how the piece was released from the mold. When the piece is finished it is time to start obtaining the cast look. First I start by running a carbide cutter lightly over the entire part roughing the surface taking all sharp edges rounding them over.

For the third step you are going need "Air Needle Scaler". This tool can be purchased at Harbor freight for around 50 bucks. Run the scaler over the entire piece, do this lightly, don't try force the tool into the part and keep going over the part until you achieve the look you want. For those of you who have the luxury of having a sand blast cabinet, you can finish off the part by blasting it and then machining the part where the mold joints and mounting surfaces are. I hope this will help you in achieving the cast iron look in your parts. Always remember to use the proper safety equipment dust mask, safety glasses and gloves…

Len

The "Air Needle Scaler" from Harbor Freight like the one on the right and mentioned in the previous article range in price from $54.99 to the economy version at $29.99…Editor

Tool Time!

by

Chris Thornton

Wood glue… which is the best to use… depends? Many years ago the only glue available to woodworkers was “hide” glue. Remember all the old cartoons with the old horse not wanting to go to the glue factory. For general woodworking purposes now days yellow carpenter’s glue (PVA, Polyvinyl acetate) is used and is dependent on clamping to hold it in place as it dries. There are other glues used in woodworking; Polyurethane (Gorilla Glue by brand), epoxy and Cyanoacrylate (Crazy Glue by brand) but this article is going to focus on PVA.

Now which brand to purchase. For years I used Elmer’s yellow carpenter’s glue. Why? I could always find it and it worked. A few years ago I needed some glue and a new brand was on the shelf, Titebond. It was a little cheaper and after checking out the instructions and ingredients I bought a bottle. It worked just the same and I had saved a few bucks so I was happy. Now days there are three types of Titebond wood glue:

- Titebond I- water resistant, interior use only, strong initial tack and fast speed of set to reduce clamp time
- Titebond II- highly water resistant exterior for use in not direct constant contact with water (outdoor furniture, birdhouses, mailboxes is OK), provides a strong initial tack, fast speed of set
- Titebond III- waterproof with the added benefit of longer open times and lower temperature application

What brand of glue you use is up to you, but it is good to know you can choose an adhesive based on your particular needs to get the right one for the job.

Most PVA wood glues have a shelf life of about two years. This can be extended by refrigerating after opening to stretch the life to 10 years or longer. I spent 21 years as a High School woodshop teacher and have proven to students numerous times that the wood will break before a glue joint so I have never had any glue age out on me.

One final note, PVA glue will wash off your hands easily while fresh but let it dry on your clothes and they are stained forever…

Chris

Assembling Parts with Brass

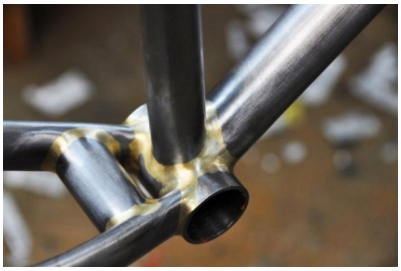
by

Lee Thevenet

In the HCR building hobby most builders' today purchase welding equipment with names like Mig, Tig, Spot Welders & Plasma Cutters. The old torch and Arc Welders are just about ready to go to the Smithsonian. You may ask, why? Well the answer is they are being replaced by the latest technology. I well remember my younger days of riding my bike and having something break on my way home from school.

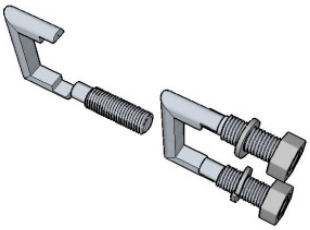
For some reason the fender brace had parted in two right next to the rear fender. Taking the bike to the neighbors welding shop and watching as the worker removed the fender and brace in order to repair the break in the brace was a new experience. He carefully cut a piece of metal of the same thickness and width as the brace and about an inch long. After clamping the cut piece to both parts of the brace, he lit his torch and carefully adjusted the flame. Using what seemed like a gold rod and carefully dipping it into a can of what he called "flux", he applied heat from the torch to the pieces and at the same time touching the rod to the clamped pieces. I watched in amazement as the rod seemed to melt right on to the pieces. The worker, not many years my senior, explained the whole process as he trimmed the area he had just repaired. This method of repair was called "Brazing"…Little did I know that I was to use this method of repair many times later in my automotive career and home project. A simple method of joining two pieces of metal using a third molten filler.

The earliest uses of brazing date back to the bronze age, almost 6,000 years ago. Brazing is very similar to welding and soldering. In welding, high temperatures are needed to melt the metals that are being joined together while a filler metal is added. The bond forms as they cool. When properly done a brazed joint is often stronger than the metals being joined together.



Brazing is done with the same handheld torch used in gas cutting and welding operations but the torch is equipped with various sized tips for heat control. Brazing can be used in various repairs of solid metal or tube construction as shown in the picture of a bicycle frame repair on the right…

I have found the brazing method of joining metal quite useful in the fabricating and assembly of various parts used in the building of my HCR prototypes. As in the preceding photo, the filler can (after proper cooling time has passed), be shaped quite easily to conform with the joined pieces very smoothly. I found that when used in conjunction with a lap joint when extending or modifying control rods or fabricating small parts as the spring shackles in the picture below can be dressed with a small file, or hand held grinder using a fine grit disc can also produce very smooth and undetected joints…

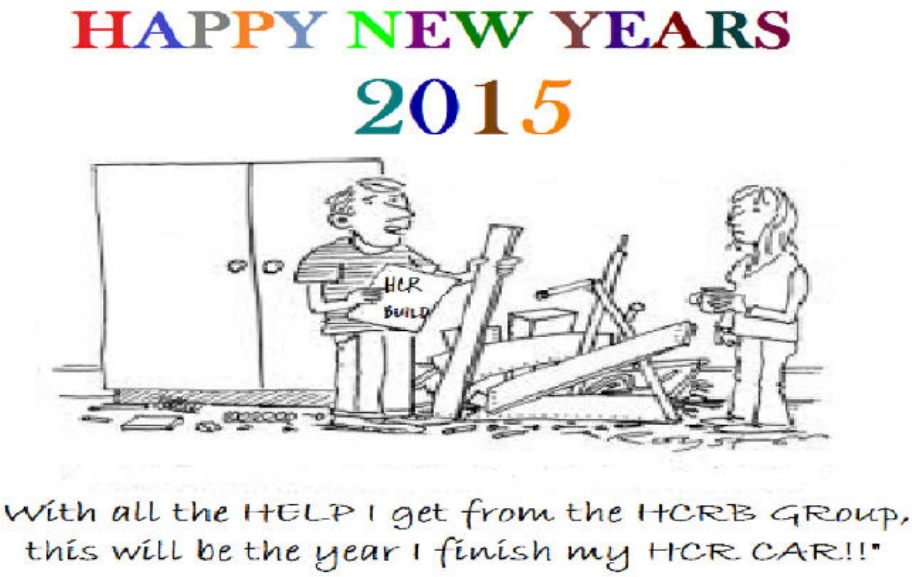


So for now, the old Lincoln stick welder and torch are not quite ready for the scrap heap. Though they are each forty six years in age, they are always like me, ready for that next project…☺

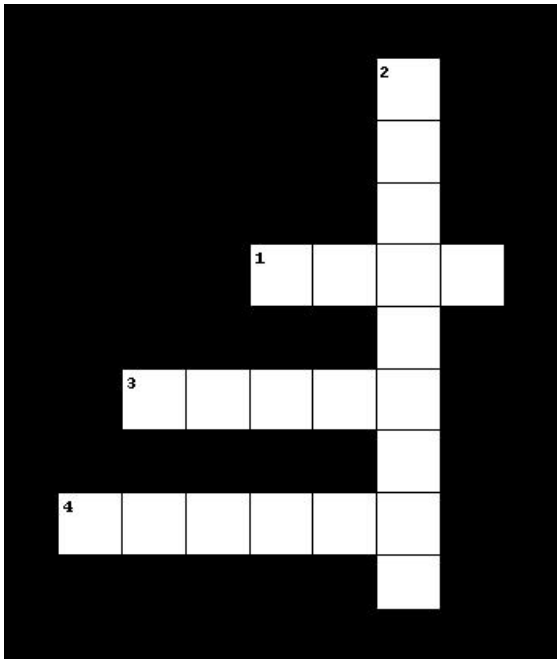
Toon

by

Judith



X – WORD by Lee



1. *A person that resembles another.*
2. *The part of an engine the piston runs in.*
3. *The _ _ _ _ _ of music.*
4. *If one is good, two must be _ _ _ _ _ _ .*

Make a sentence using these words.

Answers on last page

I received this E-Mail from Brian Hatt on September 12, 2014. With the 2014 HCR Events taking place first in Tacoma, WA, in Dallas, NC and the Newsletters in between, it just unintentionally slipped through the cracks. Here is what Brian said…

Hi guys,

I finished my 1901 C.D.O.Replica, ..7 months in the making...now to use it to raise some money for children hospital and the cancer fund...
Brian Hatt
N.B. ,Canada

Good job Brian! She looks fantastic and will certainly draw attention for these great causes…Thanks for sharing your pictures with our readers…

Lee

HCRB Members & readers….The following "First Part" of the next article was sent to me in June of 2014 but for some reason I never received it. This was noticed when I received the second part….Here it is all the way from New Zealand…..:)
Lee

Curved Dash Replica
Made In New Zealand

by
Alan Manning

Hello all H.C.R. Builders,

My name is Alan Manning, and I live with my wife Ruth in NGARUAWAHIA, located about 60 miles south of Auckland N.Z. I owned the remains of a genuine Curved Dash Olds in the 1960s and because of young family, lack of workshop and storage I sold it, a move I have always regretted.

In February I was discussing this regret with Ruth one day and mentioned I had found a guy in U.S.A who was selling plans for a replica and I thought it would be a fun project. She said "Why don't you do it?" That was all the encouragement I needed and I wrote to Lee Thevenet and ordered a set of plans which arrived promptly, I then printed them out.

I then started the process of locating suitable parts. I asked a workmate Matt. who is a cabinetmaker, if he was prepared to build the body, as my woodworking skills are zero. I supplied him with the body portion of the plans and he was very keen to be involved.

My son in law had a Honda quad bike with a good engine, my brother had a small diff, I bought 4 dirt bike wheels (21 inch) from a motorcycle wrecker, I modified the 2 rear wheels to adapt to the hubs of the small diff, I up-sized the front bearings to 15 mm, (stub axle) the largest inside diameter bearing I could get to fit the hubs. The springs were from the local car wrecker, and I bent them to Lee's plans. I managed to drill the mounting holes using a re-sharpened masonry drill bit. This weekend I will finish the stub axles and weld the yokes to the axle tube, along with all the other steering attachments.

During this build I have adhered to Lee's plans as closely as possible. This will make it easier to re-work any portion that does not work out, for instance I have my doubts about the small diff, but I will not be driving it aggressively so it should hopefully stand up.

I am now away on holiday till the middle of July, so when I return Matt will have the body ready and I can then accurately locate the engine in the chassis, locate the countershaft sprockets and also where to extend the diff housing.
I will send more progress reports and photos as this project continues…Alan

Still trying to play catch up on HCR stuff that slipped through the cracks but getting there… These pictures and write up of a CDO build I received on December 8, 2014 from Alan Manning….

Sorry Alan on getting your pictures & write up sooner but it seems like between HCR Meets, parades & car shows, I just missed it somehow….Here is Alan's latest CDO pictures & write up….Lee

Curved Dash Replica

Made In New Zealand

by
Alan Manning

Hello again to all HCR builders,

I must have missed reading my first description of my C.D.O. Build. This project is progressing well, I have finally received the body from my friend in Wangarei, about 160 miles North, we were delayed waiting for fine weather to transport it as it was still unpainted. I have now got it primed and undercoated, and now just waiting for my son, who is an ex car painter to come and do his bit. We are now just coming into summer so the weather should settle for the painting.

My part has been the steelwork, chassis, axles and mechanicals. I was originally going to use a quad engine and transmission but it was starting to look a bit of a nightmare with many chains, countershaft, right angle drive etc.

I decided to make a hydraulic transmission with a gear pump on the engine driving a Charlynn motor mounted on the diff. This has all been calculated by our hydraulic man from work who gave me all the components, except the control valve. This setup should give me nearly 20 M.P.H. infinitely variable down to a crawl. At full power it will use about 8 horsepower of the 11 horsepower Briggs & Stratton engine.

Continued

I have kept to Lee's plans as closely as possible so if anything does not work out it can be easily reworked. One friend remarked "how are you going to get rid of the Briggs & Stratton noise" I must admit I don't know, a Briggs always sounds like a Briggs!!!!!!!! I'll have a lot of playing around with mufflers.

Seasons Greetings from New Zealand to all readers,
Alan Manning

Alan, The secret to toning down the single cylinder B&S is a long tailpipe to the rear and the smallest auto (not a straight through)muffler…She will purr…..:)

PS: Some of us in the states would like to hear more on that differential motor and the rear wheel to axle adapters you made…..:)
Lee

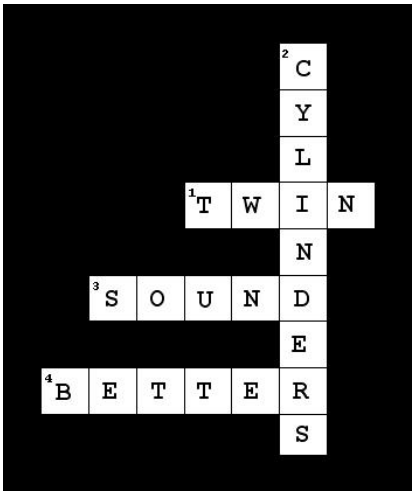
In Closing

We made great progress in 2014 with new Members joining the HCRB ranks. Two great HCR Meets to close out the year. As we continue to grow in numbers, we still need leaders out there to set up Meets in other states as already done in Washington and North Carolina. It only takes a few Members with their HCR's to start by having a Meet during a Fair, Car Show, Tractor Show or other outdoor gathering and believe me, the attendance will grow….:)

I want to thank those HCRB Members who have sent in pictures, write ups and articles for the HCR Newsletter. Keep them coming, that is the only way the Newsletter can survive.

Happy New Year & peace in the new year to all of you!

Lee Thevenet



Twin cylinders sound better