

Oct 11th, 2017

METRO DETROIT METALWORKERS CLUB

Monthly Newsletter

Steve Huck suggested a website review / refresher for the group as some new, and some of our long-time, members were not aware of the website we have - (www.metrodetroitmetalworkers.com) See the next section, it's a snapshot of the homepage Steve has put together, Steve's been keeping it up and doing an excellent job. Get on there, snoop around, check it out and see if you have anything to add to the site. Plans, videos, pictures etc... are all welcome and would help promote the group. I do have to give a big thanks to Steve for having the website available – Last month coming over for the meeting I got the third degree from the primary inspection guy at the border, now some might say I deserve it but let's not go there... anyway, he was not buying the fact that I had been coming over for nearly two years, just walking into a college without a student card, without being a student, just wasn't having it, no way. Went through my truck and stuff several times and then sent me in for secondary inspection. When I got inside I explained what I was coming over for and to cut to the chase... they looked up the website and let me go... Whew, close call! A big thanks to Steve for the website.

Greetings!!

Welcome to the web site of the Metro Detroit Metalworking Club. The MDMC is a diverse group of people interested in metal working of all kinds. Member projects include building machine tooling, miniature engines, experimental aircraft, scratch built cars, scale railroad and metal furniture.



The MDMC also gets booths/tables as a group at some of the local shows such as the NAMES show and the Maker Faire. Members are encouraged to bring out there projects in an effort to promote interest in the hobby. We will be there to answer questions about the projects to try to help like minded people to successfully complete there projects. We also like to show the younger crowd that it is possible to make something and not have to buy everything.

The rotary engine pictured below was built by members of the club. Individual parts were made by many of the members and later assembled into a working engine. This project is the mascot at the shows. Future "Team" builds may happen based on the success of this one.

Anybody who is interested in working with metal is welcome to attend. The meetings are semi formal with an occasional guest speaker who will talk about and discuss a special skill or technique. Meetings are held on the second Wednesday of the month at the Macomb Community Collage South Campus. We are currently in "M" building in room 108. Meetings start at 7:00 pm.

Guests are welcome to attend meetings free of charge. If you are interested in joining after a few meetings, there will be a yearly fee of \$10.

Step right up, claim your prize!



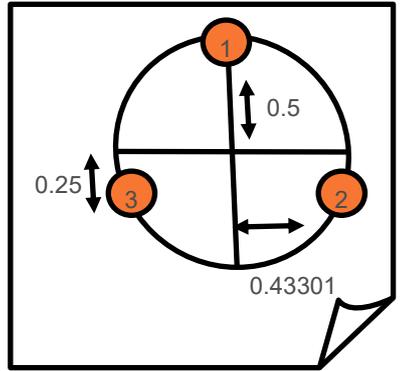
Vice President Kevin was guarding the giveaways with extra care this month, much thanks to everyone that donated something for the draw. Precision gage blocks, flashlights, magnifying glass.... Something for everyone for sure. You can tell by the looks on everyone's face that the excitement in the room was building

in anticipation of the big draws. Look at those reactions!!!



The “wHole” Pattern

Louis brought in some copies of a bolt-hole pattern calculating sheet. I'll attach it as a separate file this month so you can save it for future reference when you need to put some holes in a workpiece. I checked out the first pattern, three holes at 120 degrees, and it appears simple enough to use, a more ambitious type might even drop it into a spreadsheet... Hint for anyone who's good with that stuff and may want to add a user friendly help sheet to the website. Anyway, in the example shown the three values are constants that are multiplied by the Diameter of the bolthole pattern. If you used a 3" Diameter pattern, hole one (1) would be $0.5 \times 3 = 1.5$ ". Hole two (2) would be $0.43301 \times 3 = 1.29903$ " right of the centerline and below the horizontal line the same distance as hole three (3) which is $0.25 \times 3 = 0.75$ " and vice versa for distance off the vertical line. Thanks for the great calculator Louis.



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For those working from a “G20” perspective... :

Hole 1— X0, Y1.5

Hole 2— X1.29903, Y-0.75

Hole 3— X-1.29903, Y-0.75

Target Practice

Vertical milling machine alignment discussion was well received, many weighing in with thoughts and ideas to a problem that was identified in a Bridgeport alignment recently. When milling etc. in an X/Y plan there is little to verify other than squareness



of those two, when you are removing metal from one plane. When you add depth to the equation you need to make sure that the spindle centerline is running true (perpendicular) so that you are drilling or boring straight holes perpendicular to the surface. Once you tip or nod the spindle to create an angled hole you **MUST** make sure that the ram is parallel with the Y axis movement, or your part “as set up” to ensure that you don’t create a hole on a compound angle. There are a few ways to verify this but Kevin had the “easy” verification process of the day. When the ram is extended, along the RH side of the ram’s dovetail there is a small 1/8 inch or so flat surface that can be checked with an indicator while attached to the table and moved in the Y +/- directions. Rotate the turret to get alignment and you’ll be able to hit your **target** position at the bottom of a hole without any issues.

Steve Huck is going to be representing down at the Mid East Ohio Model Engineering Expo October 21st, it’s the tenth annual and keeps growing. If you’re looking for a day trip, head down and have a look.

Tenth Annual Mid-East Ohio Model Engineering Expo!

Saturday, October 21, 2017 9 a.m. to 4 p.m.

Muskingum County Fairgrounds
1300 Pershing Road • Zanesville, Ohio

Model Enthusiasts

- Precision machined gas, steam, and stirling cycle engines
- Fully operational models
- Miniature machine tools and supplies
- **FREE** parking on premises
- RV parking available on premises (**FREE** without hookups)
- Concessions from local hotels and restaurants

Vendors/Exhibitors

- Set up Friday, October 20, 9 a.m.-6 p.m.
- Electric included with booth fee
- **FREE** parking on premises
- RV parking available on premises (**FREE** without hookups)
- Complimentary forklift and operator available
- Concessions to local hotels and restaurants

Toy Vendors

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Video lesson of the month was another beauty by Joe Pieczynski (<https://youtu.be/U3x8H1Xb-jg>) on a lathe chuck improvement to help get parallel parts quick and easy. Technique doesn’t require much in the way of effort to set up but gives you a “dog simple” work holding system. Check out Joe, he’s got many solutions on YouTube, just search Joe Pieczynski. 🤘

Christmas dinner isn’t too far off and a vote was taken, chicken it is again this year, the I’s took it. Please bring along your plans for a dish to the November meeting, or let me know if you can’t make that meeting, so we can see how the spread is shaping up.

Next meeting is Nov 8th, see you ALL there.

MULTIPLY THE VALUES SHOWN BY THE DIAMETER OF THE GIVEN CIRCLE
 DIMENSION BETWEEN EQUALLY SPACED CENTERS ON CIRCLES 1 IN. IN DIAMETER

