

# Metro Detroit Metalworking Club

## Newsletter

Volume 2, Number 1 (January, 1998)

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### NEXT MEETING

The next meeting of the Metro Detroit Metalworking Club will be held at the old fire hall at the Southfield Burgh historical site on Wednesday, January 28 from 7 PM to whenever we want to quit.

Frank Bennett has volunteered to give a talk on lost wax casting and to show us a homemade vacuum pump and other "goodies."

Al Roth has volunteered to give a talk and show a video on his patented taper and threading tool that fits into the tailstock of a lathe. He will also discuss what is involved in obtaining a patent.

The Historic Burgh Center is at the intersection of Civic Center Drive (10 1/2 Mile Rd) and Berg Rd. (Berg Rd is about 1/4 mile east of Telegraph Road between Telegraph and Lahser Rds.) The Burgh Center is on the North East corner, park in the Human Resources Center parking lot and walk north a couple of buildings (on Berg Rd) to the Old Fire Hall. (The Historic Burgh Center and old Fire Hall are about one and three quarters of a mile west on Civic Center Drive from the Southfield Public Library, where we have been meeting.)

Coming from Telegraph Rd turn East on Civic Center Dr. go about 1/4 mile to the traffic light at Berg Rd and turn North into the Human Resources Parking lot.

For more information on the club, contact our President, Bob Lorenz, at \_\_\_\_\_ or

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### MEETING NOTES

SOUTHFIELD, MI. We had a good turnout at our December meeting. Thanks to Bob Lorenz it was held at an old fire station in the Historic Burgh Center in Southfield. The building had all sorts of old firefighting equipment including a beautiful firetruck. We had seven new members at this meeting; our current roll is about forty members.

Jim Mudge brought back his popular ballon-powered engines and a large hot air engine that burned propane and turned a flywheel about eight inches in diameter. Stephen Gutierrez brought along a small engine made from Ed Warren plans. While we tinkered with these toys Bob got down to business and gave us a quick treasurer's report then asked new members to introduce themselves. We passed around copies of a list of member names and a list of metalworking suppliers in the Detroit area.

Jim Schrot brought a couple of catalogues and read some interesting articles from the Smithy catalogue including one about the difference between a rotary table and a dividing head. Jim also brought in a couple of small grinding heads and challenged the group to explain the significance of the different colored compounds used to make them. The discussion led into our next part of the meeting very well.

We spent a good portion of this meeting with our Q & A session. Here are some of the topics covered.

1. How do you get crud off honing stones?  
Get a brick and some sand and rub the stones on them. Old timers used to use sidewalks for this operation! Use sandpaper on a piece of plate glass and rub the stone in a figure eight pattern. Dip crystalline stones in a solvent to help keep grit and oils in suspension.
2. We were warned by a couple of members about certain white grinding wheels made in Israel that were prone to exploding.
3. What is the difference between using a bandsaw and an abrasive wheel to cut metal?  
Abrasive wheels "cut" by abrading and in so doing produce enough heat to harden the metal they are cutting. They cut slower than bandsaws. Bandsaws cut by cutting and are much cooler than abrasive wheels.
4. What is the difference between a 2-flute and a 4-flute endmill?  
2-flute endmills are about a thousandth of an inch off from perpendicular. They may chatter more than 4-flute endmills and are less rigid. They are better than 4-flute endmills for removing chips. 4-flute endmills are generally more rigid and thus more stable than = 2-flute endmills. They produce a finer finish and are truly parallel.
5. Cut-off tools.  
According to our group, using the cut-off tool is the most unpleasant job you can do on a lathe. Set it at dead center. Cut-off tools were designed to cut tubes of metal not cylinders and are very good at the former and a real bother with the latter.
6. How do you drill a square bottom hole in cast bronze?  
Use a d-bit. Take an old drill bit the same diameter as your hole and grind a flat bottom on it then use this to finish the bottom of the hole you drilled with a regular bit.

- Stephen Gutierrez

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## FROM OUR PRESIDENT

From Bob Lorenz, our President:

I am thinking about making an EDM using the plans in Home Shop Machinist. Has anybody in the club done this project yet?

I hope to see you all at the January meeting and remember to bring your "show and tell" items and questions.

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## CLUB WEBSITE

The club's website is at:

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We've now got a sub-page devoted to local metalworking resources (where to buy stuff). This has just been updated with new information from Joe Comunale - Thanks, Joe!

Bryan Whitfield has suggested that we add more links to the club's website, and has begun collecting some. We hope to get enough links so that it makes sense to split off a page for links, just as we now have a separate page for local Detroit metalworking resources. If you have any favorite links to Internet sites related to metalworking or model engineering (or relevant "real" engineering), please let either Bryan ([\\_\\_\\_\\_\\_](#)) or David ([\\_\\_\\_\\_\\_](#)) know. Also, if you have a home page of your own, let me (David) know so that I can add a link to it from our club site - whether or not your home page has anything to do with metalworking.

- David M. MacMillan

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