Polly Shopping List

To build Polly as per the SMEE course notes, you will need:-

Bar stock –

- 12” of ½” diameter brass bar (smaller diameters will be turned from this);
- 6” of 3/8” AF brass hex bar;
- 6” of 3/8” diameter brass bar;
- 3” of brass bar, 1/8” x 1”;
- 6” of ¾” square brass bar;
- 9” of 1/8” diameter silver steel bar (smaller diameters will be turned from this);
- 12” of 1/8” diameter stainless steel bar (smaller diameters will be turned from this);
- 3” of 2” diameter steel bar; (formers for flanging – turn down to size)
- 6” of 1 ¾” diameter steel bar **– Note 4**;
- 4” of 1 ½” diameter steel bar;
- 2” of 1” diameter steel bar;
- 6” of ¾” diameter steel bar(smaller diameters will be turned from this);
- ¼” of 2 ½”diameter steel bar (suggest using 1 ¾” diameter steel bar – for weighting the model);
- 3” of 3/8” square steel bar;
- 2” of 1” x 1/8” bar (used for tooling);
- 4” of ¼” x ½” square steel bar;

Sheet metal –

- 1 piece of 20 swg brass sheet (5 x 1);
- 1 piece of 26 swg brass sheet (6 x 1);
- 1 piece of copper sheet (3 x 6), 16 or 18 swg;
- 1 piece of 22 swg steel sheet (12 x 6) **– Note 3**;

Other metal –

- 12” of 1/16” diameter brass wire;
- 12” of 0.5 mm diameter bronze wire – **Note 2**;
- 12” of 28 swg diameter bronze wire;
- 12” of 30 swg diameter bronze wire;
- 3” of 1 ¾” diameter copper tube (16 to 24 swg) – **Note 1**;
- 6” of ½” diameter copper tube (16 to 24 swg);
- 12” of 1/8” (outside diameter) copper pipe;

Nuts and bolts, washers, etc. –

- 1 off 0 BA brass nut;
- 2 off 10 BA brass nuts;
- 6 off 6 BA brass nuts;
- 2 off 1/16” diameter brass rivet, 5/32” in length;
- 2 off 10 BA brass washers;
- 1 off 8 BA brass washers;
- 1 off 3/16” diameter brass ball – **Note 2**;
- 1 off 3/16” diameter steel ball;
- 1 off 4 BA x ¾” steel bolt;
- 3 off 6 BA x 3/16” steel bolts;
- 4 off 3/32 x 5/16 steel countersunk rivets;
- 1 off 8 BA x ¼” grub screw;

Other Stuff! –

- Bakers Fluid – flux for soft soldering;
- Soft solder;
- Silver Solder (1 mm stick) – if you have never done silver soldering before, get a small pack or certainly more than 1 stick;
- Silver soldering equipment (hearth, burner, gas, etc.);
- Silver Solder flux appropriate to the solder you’ve bought;
- 1 off 1/8” snap rivet;

NOTES

1. 1 ¾” diameter copper tube will be used for the boiler and can be purchased from the Society during the course;
2. 1 off 3/16” diameter brass ball, 0.5mm bonze wire, as well as the union cone and nut can be purchased from the Society during the course;
3. The steel sheet is used to make the firebox, base and stand, and laser cut profiles for these items can be purchased from the Society during the course;
4. Half of this is used to roll the burner body, the other half for the fly-wheel. Alternative material for the fly-wheel (cast iron) can be purchased from the Society during the course.