METBD 111
Activity 7 – Top-Down Assembly Modeling

Model the parts of the Antivibration Mount, shown in the figure below, using top-down assembly modeling methods. Be sure to capture the following design intent when making your models:

- The opening of the YOKE, which is shown as 2 7/8” controls the width of the BODY and the length of the BUSHING. If the opening is made larger or smaller, the other parts should follow appropriately.
- The diameter of the holes (25/32”) in the YOKE are 1/32” bigger than the diameter of the HEX BOLT. If the diameter of the bolt changes the holes in the YOKE and the BUSHING should change accordingly. Note that the holes in the BUSHING are given as 3/4”. The bolt diameter may vary from 1/2” to 1” diameter.

Where to Find Missing Information:
- Bolt proportions can be found in Fig. 12.24(a) on page 413 of the text. Don’t worry about the threads or chamfers on the bolt.
- Size for slotted nuts can be found in the McMaster-Carr catalog at www.mcmaster.com. It’s on catalog page 3000.
- Cotter pin information can be found in the Appendix 30 of the text, page a59.
- The standard parts have to be represented by a solid model, but they do not have to be detailed.

What to do:
- Create a top-down assembly model of the parts.
- Create an exploded assembly drawing complete with parts list and balloons.
- Create a detail drawing for each of the three non-standard parts (BODY, YOKE and BUSHING). Use two-place dimensions in your drawings. Note that the figure below uses “old style” dimensioning methods. You are to use proper dimensioning techniques.
- See the web page for the proper drawing numbers.

Prob. 18.4.1 Antivibration mount.