ME 172

ENGINEERING GRAPHICS – Principles and Applications

Grading Rubric/Metrics

- 10 pts for each model in 1, all or nothing
- 10 pts for each drawing in 2

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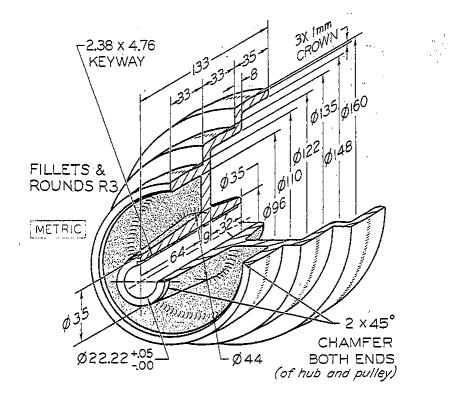
See each problem's "Requirements" for precise allocation of points

H_6i Other Solid Features 60 points

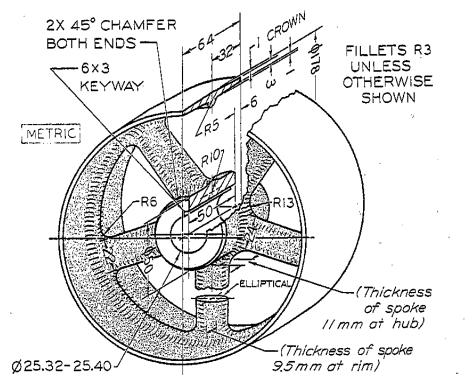
Due: <u>At the Beginning of Your Lab</u> (week of 20th Feb. 2012)

Expected time to complete 4-6 hrs

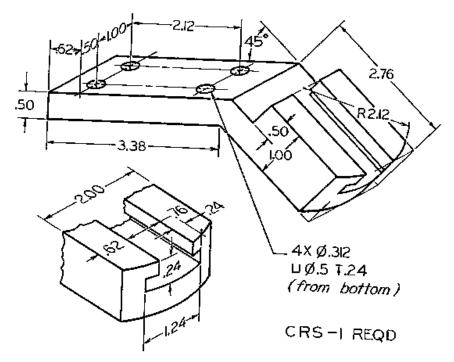
1. Create the three mechanical objects below.



Technical Drawing (12th Edition), Giesecke, Mitchell, Spencer, Hill, Dygdon, Novak, page 220



Technical Drawing (12th Edition), Giesecke, Mitchell, Spencer, Hill, Dygdon, Novak, page 220



Technical Drawing (12th Edition), Giesecke, Mitchell, Spencer, Hill, Dygdon, Novak, page 246

Requirements:

1. Plan the modeling of these solids

- 2. Use sketches, extrudes, revolves, sweeps, blends, ... create these models (use the indicated modeling units).
- 3. Print out a Shaded with Edges Trimetric view of each solid.

2. Create 3-view <u>engineering drawings</u>. Requirements:

- 1. Plan the creation of 3-view engineering drawings.
- 2. Use a B- or A3-size sheet/title-block layout.
- 3. For the first part the right view should be a half section, be careful where this view is placed, it's an international metric part. (-5 pts if views are not correct)
- 4. Use good baseline style dimensioning. (-¹/₂ pt for each wrong or missing dimension)
- 5. For the second part the right view should be an aligned full section, assume this metric part is strictly made and used in the US. (-5 pts if views are not correct)
- 6. Use good standard and tabular style dimensioning. (-½ pt for each wrong or missing dimension) The third part you will need to create two auxiliary views.
- 7. Use other section and auxiliary views as needed. (-5 pts if views are not correct)
- 8. Use good ordinate style dimensioning. (-½ pt for each wrong or missing dimension)
- 9. Print out your drawings on B- or A3-size paper and turn them in each with their attached Isometric image.