Engineering Design Graphics *with* Autodesk® Inventor 2017

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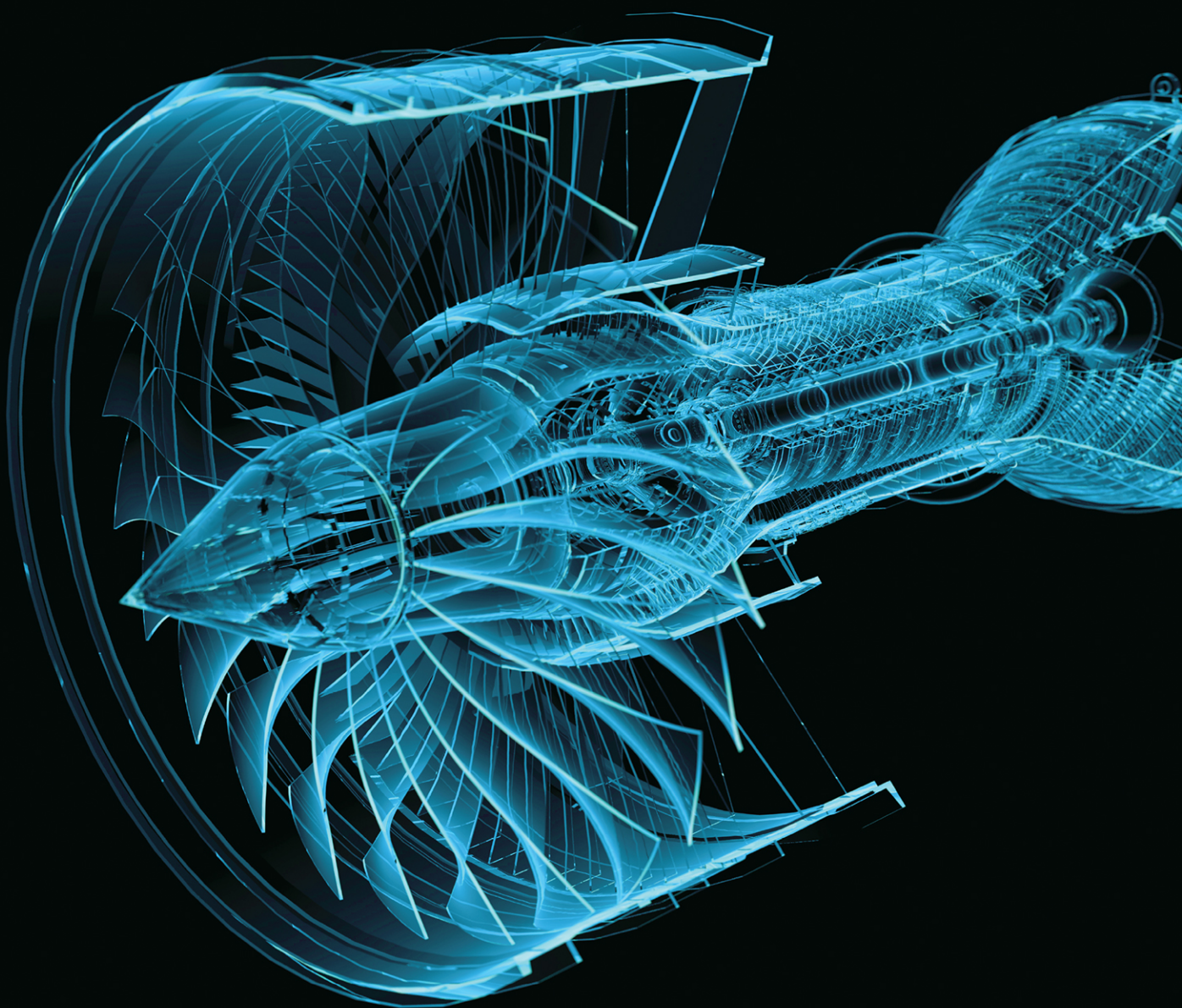

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Figure 5-73

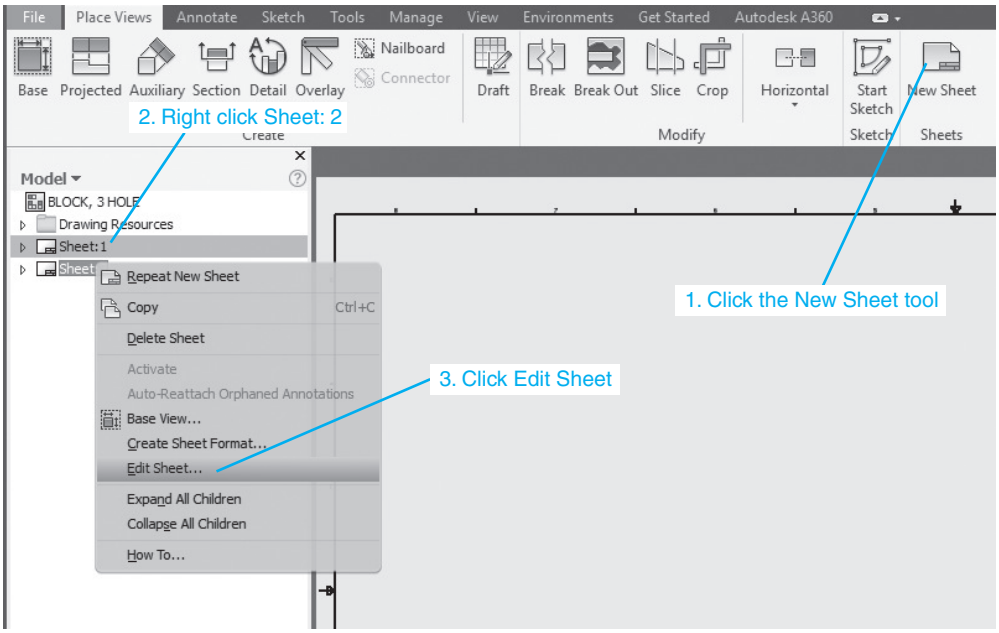
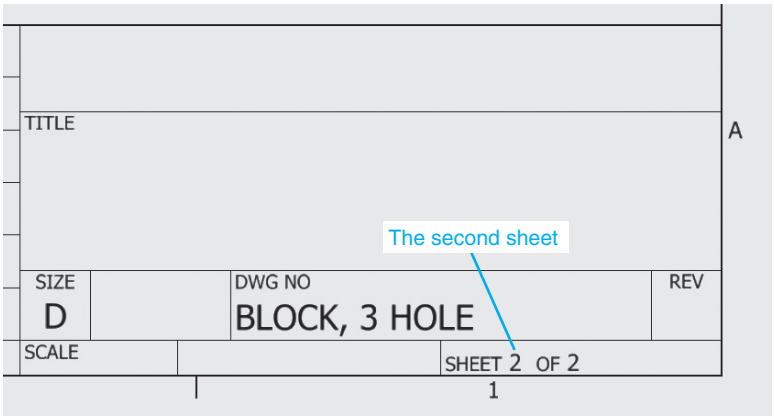


Figure 5-74



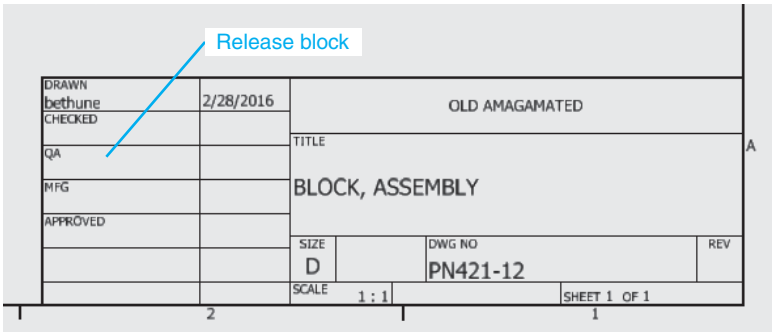
Other Types of Drawing Blocks

Release Blocks

release block: The area in a title block where required approval signatures are entered.

Figure 5-75 shows an enlarged view of the title block. The area on the left side of the block is called a ***release block***. After a drawing is completed, it is first checked. If the drawing is acceptable, the checker will initial the drawing and forward it to the next approval person. Which person(s) and which department approve new drawings varies, but until a drawing is "signed off"—that is, all required signatures have been entered—it is not considered a finished drawing.

Figure 5-75



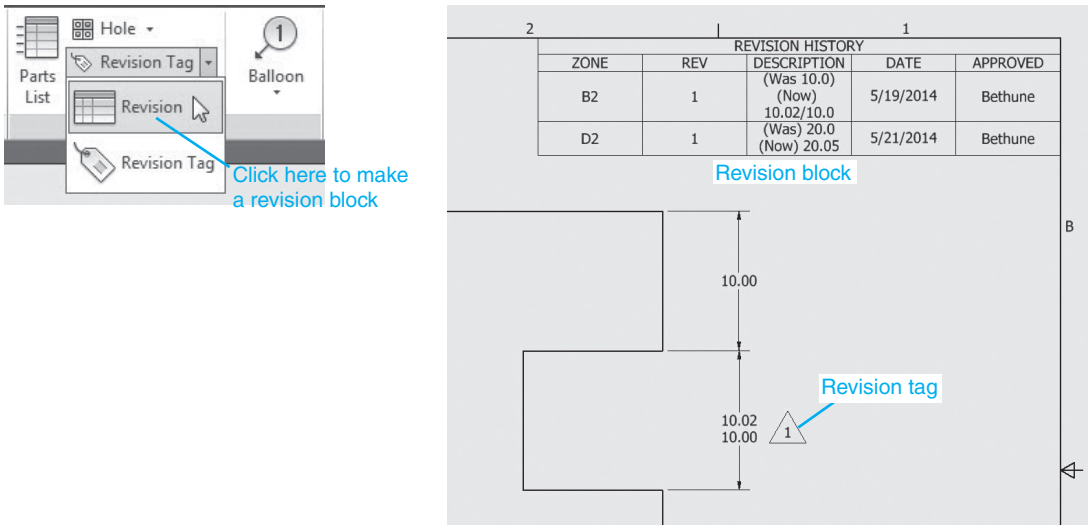
Revision Blocks

revision block: The area in a drawing where changes are listed by number with a brief description of the change.

Figure 5-76 shows a sample ***revision block***. It was created using the **Revision Table** tool located on the **Table** panel under the **Annotate** tab. Drawings used in industry are constantly being changed. Products are improved or corrected, and drawings must reflect and document these changes.

Drawing changes are listed in the revision block by number. Revision blocks are usually located in the upper right corner of the drawing.

Figure 5-76



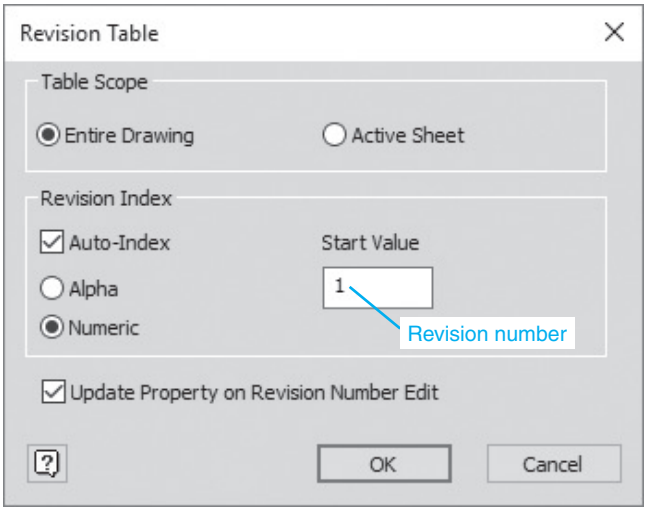
EXERCISE 5-28 Creating a Revision Block

1 Click the **Revision Table** tool on the **Table** panel.

The **Revision Table** dialog box will appear on the screen. See Figure 5-77. Revisions are usually numbered starting with 1. The default **Start Value** shown in the **Revision Table** dialog box is **1**. The numbers shown in the revision tag should correspond to numbers listed under the **REV** heading in the revision block.

2 Click **OK**.

Figure 5-77



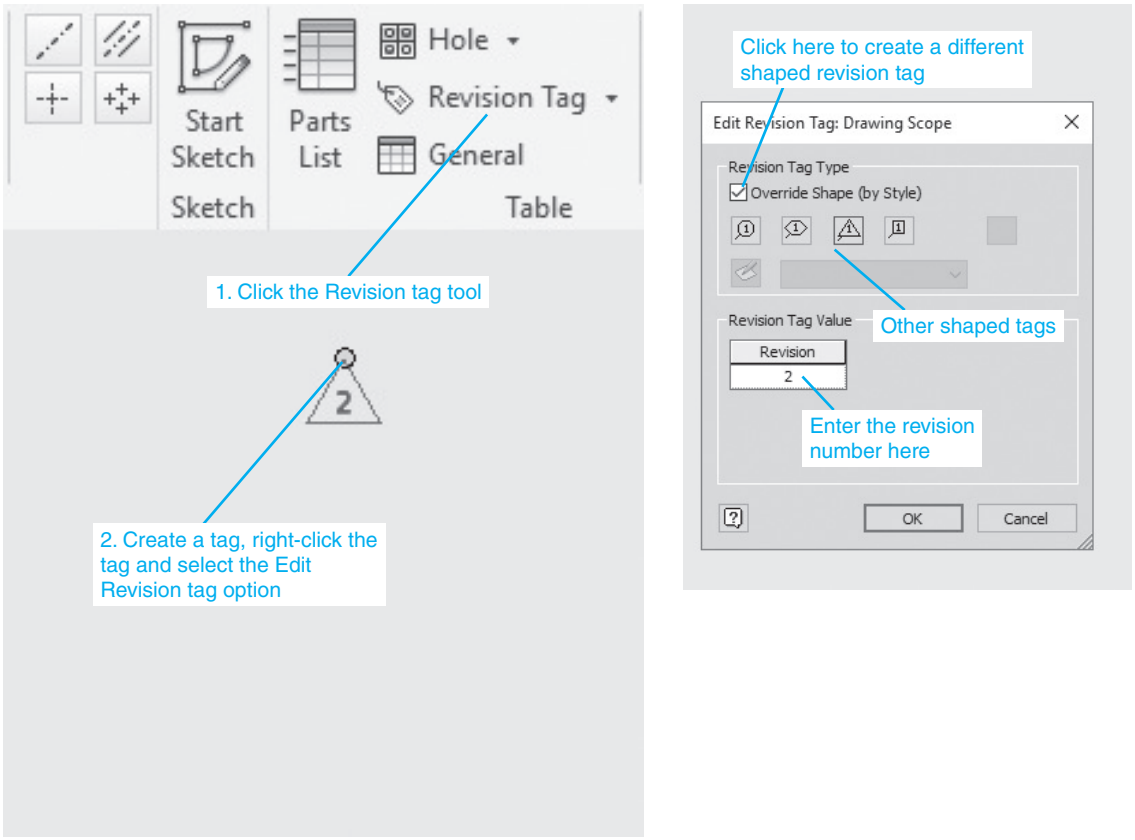
An outline of the revision block will appear on the screen. Revision blocks are usually located in the upper right corner of the drawing. Move the rectangular outline to the upper right corner of the drawing and click the mouse.

Each drawing revision is listed by number in the revision block. A brief description of the change is also included. It is important that the description be as accurate and complete as possible. The zone on the drawing where the revision is located is also specified.

The revision number is added to the field of the drawing in the area where the change was made. The revision letter is located within a "flag" to distinguish it from dimensions and drawing notes. The flag is created using the **Revision Tag** tool located on the **Table** panel under the **Annotate** tab. See Figure 5-76. The **Revision Tag** tool is a flyout from the **Revision Table** tool.

To change the number within a revision tag, right-click the tag and select the **Edit Revision Tag** option. A text dialog box will appear, and the tag number may be changed. See Figure 5-78.

Figure 5-78



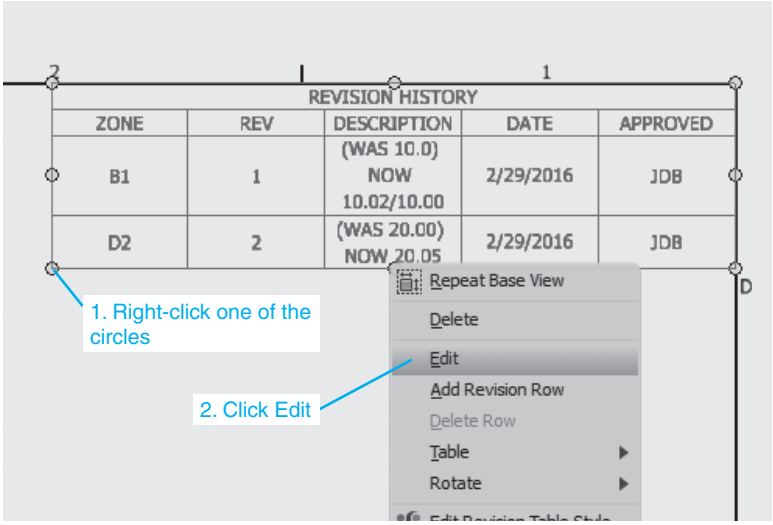
EXERCISE 5-29 Editing the Revision Block

1. Move the cursor onto the revision block.

Filled green circles will appear around the revision block. See Figure 5-79.

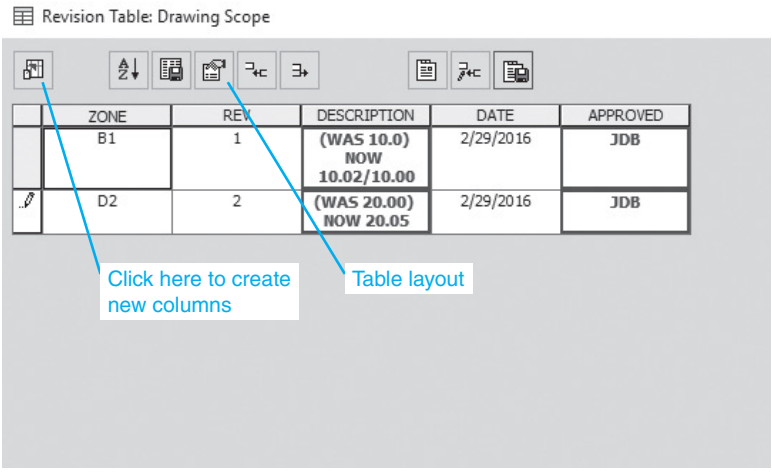
2. Right-click the mouse and select the **Edit** option.

Figure 5-79



The **Revision Table** dialog box will appear. The block's headings may be edited or rearranged as needed. See Figure 5-80.

Figure 5-80



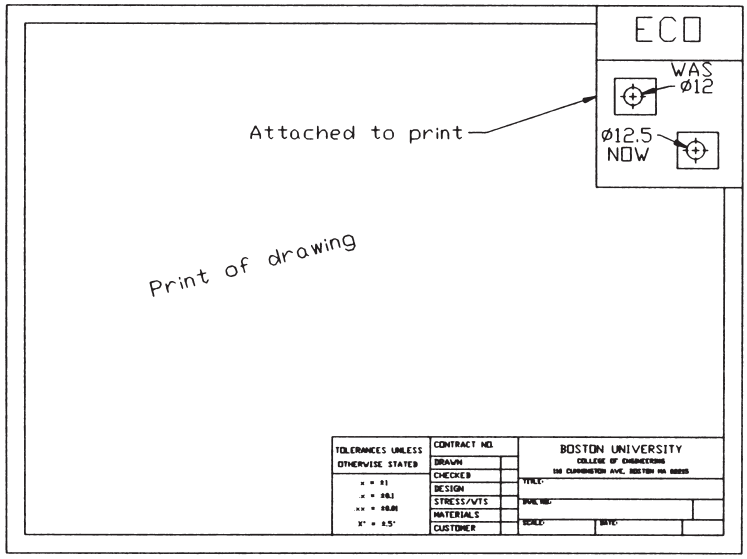
ECOs

Most companies have systems in place that allow engineers and designers to make quick changes to drawings. These change orders are called *engineering change orders* (ECOs), *engineering orders* (EOs), or *change orders* (COs), depending on the company's preference. Change orders are documented on special drawing sheets that are usually stapled to a print of the drawing. Figure 5-81 shows a sample change order attached to a drawing.

drawing revision: A version of a drawing into which change orders have been incorporated.

After a number of change orders have accumulated, they are incorporated into the drawing. This process is called a ***drawing revision***, which is different from a revision to the drawing. Drawing revisions are usually identified by a letter located somewhere in the title block. The revision letters may be included as part of the drawing number or in a separate box in the title block. Whenever you are working on a drawing, make sure you have the latest revision and all appropriate change orders. Companies have recording and referencing systems for listing all drawing revisions and drawing changes.

Figure 5-81

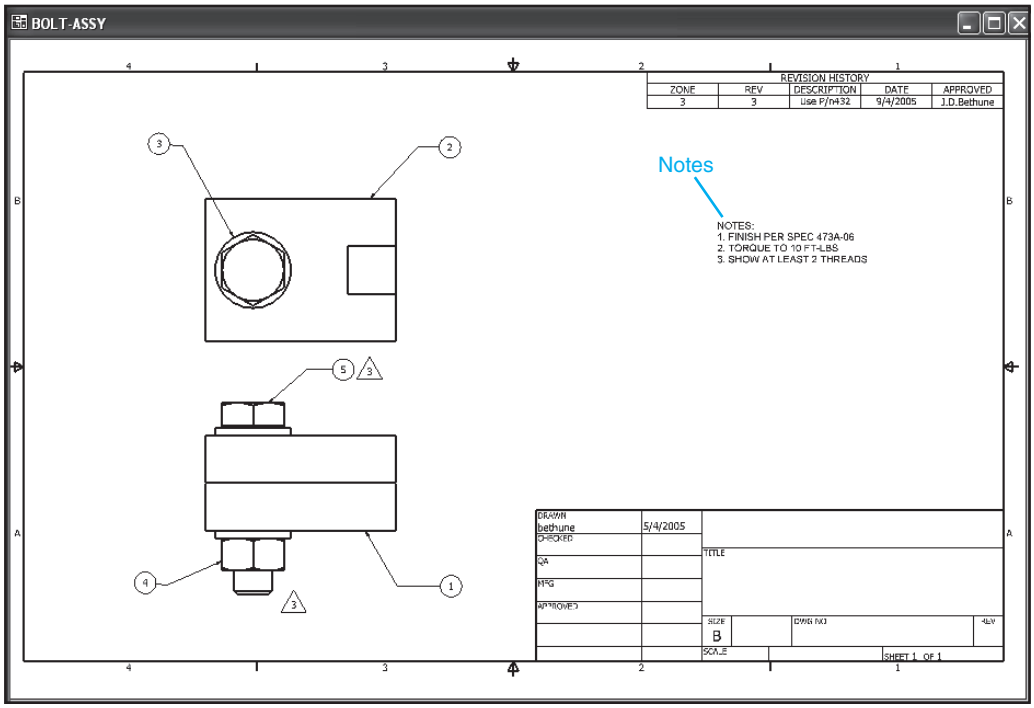


Drawing Notes

Drawing notes are used to provide manufacturing information that is not visual; for example, finishing instructions, torque requirements for bolts, and shipping instructions.

Drawing notes are usually listed on the right side of the drawing above the title block. Drawing notes are listed by number. If a note applies to a specific part of the drawing, the note number is enclosed in a triangle. The note numbers enclosed in triangles are also drawn next to the corresponding areas of the drawing. See Figure 5-82.

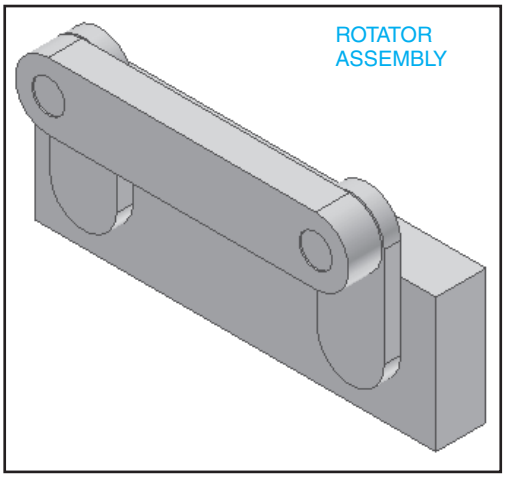
Figure 5-82



Top-Down Assemblies

A *top-down assembly* is an assembly that creates new parts as the assembly is created. Figure 5-83 shows a **ROTATOR ASSEMBLY** that was created using the top-down method. This section will explain how the assembly was created.

Figure 5-83



EXERCISE 5-30 Starting an Assembly

When creating a top-down assembly, start by saving the assembly drawing. Individual components can then be added to the assembly drawing.

1. Click on the **New** tool.
2. Click the **Metric** tab, and select **Standard (mm).iam.**

   The **Assemble** tab will appear.
3. Left-click on the heading **Assembly1** in the browser box.

   See Figure 5-84.
4. Click the arrowhead next to the large **I** icon in the upper left corner of the screen and select the **Save As** tool from the cascading menu.

   The **Save As** dialog box will appear. See Figure 5-84.

Figure 5-84