



A. Axle.

Step 1. Click File Menu > New, click **Part** and OK.

Step 2. Click **Right Plane**  in the Feature Manager and click **Sketch**  from the Content toolbar, **Fig. 1**.

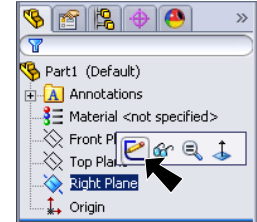


Fig. 1

Step 3. Click **Circle**  (S) on the Sketch toolbar.

Step 4. Draw a circle starting at the Origin , **Fig. 2**.

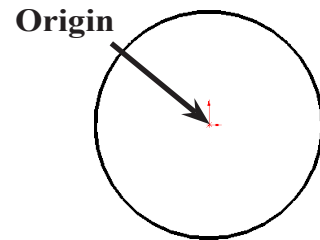


Fig. 2

Step 5. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 6. Dimension circle **diameter .25**, **Fig. 3**.

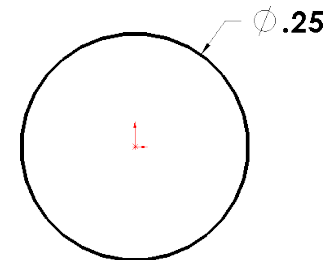
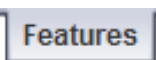




Fig. 3

Step 7. Click **Features**  on the Command Manager toolbar.

Step 8. Click **Extruded Boss/Base**  on the Features toolbar.

Step 9. In the Property Manager set:
 under Direction 1, **Fig. 4**
 End Condition **Mid Plane**
Depth  **3.6**
 click OK , **Fig. 5**.

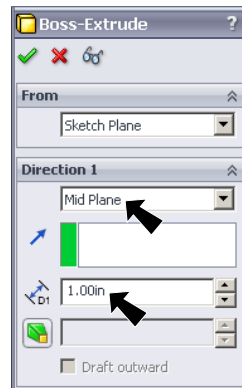


Fig. 4

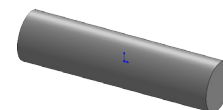


Fig. 5


Step 10. Click **Zoom to Fit**  (F) on the View toolbar.

B. Save as "FRONT AXLE".

Step 1. Click File Menu > Save As.

Step 2. Key-in **FRONT AXLE** for the filename and press ENTER.

C. Mate References.

Step 1. Click **Right Plane**  in the Feature Manager to select Plane, **Fig. 6**.

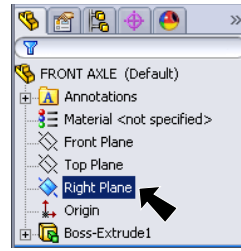


Fig. 6

Step 2. Click **Reference Geometry**  on the Features toolbar and **Mate Reference** from the menu.

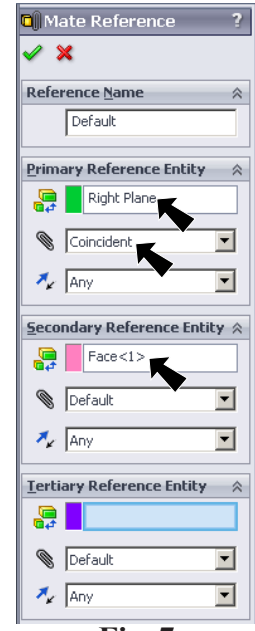


Fig. 7

Step 3. In the Mate Reference Manager: under **Primary Reference Entity**, **Fig. 7**

set **Mate Reference Type**  **Coincident**

under **Secondary Reference Entity**

click in Entity box  and click **cylindrical face of Axle**, **Fig. 8**

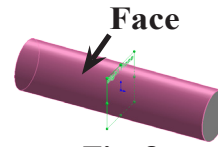




Fig. 8

click OK .

D. Material Maple.

Step 1. **Right click** **Material**  in the Feature Manager and click **Edit Material** , **Fig. 9**.

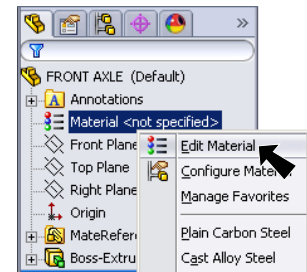


Fig. 9

Step 2. **Expand Woods** (click the +) in the material tree and click **Maple**, **Fig. 10**. Click **Apply** and **Close**.

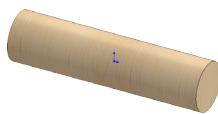


Fig. 11

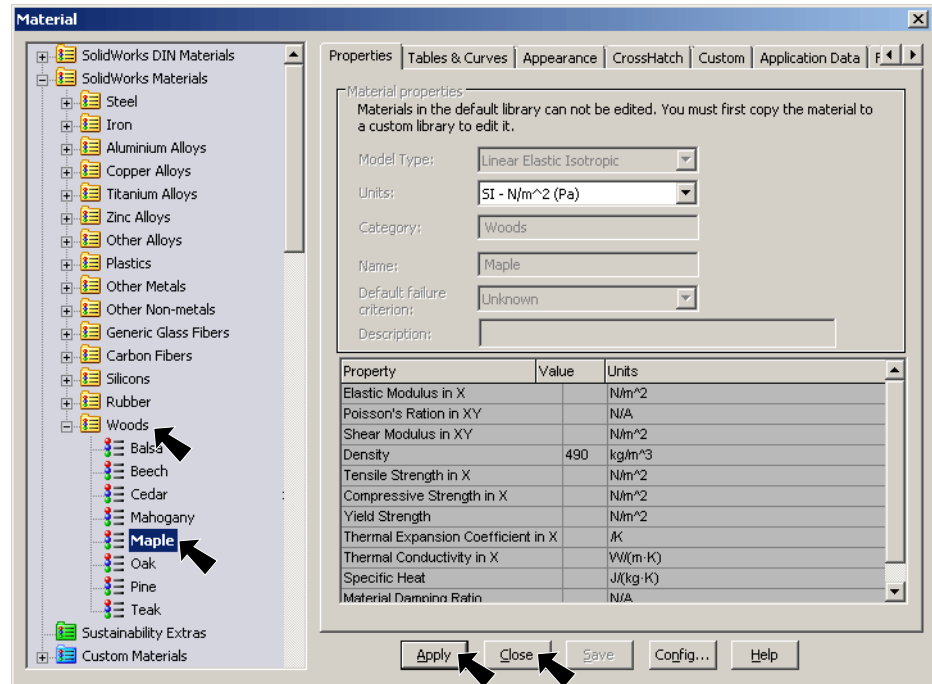


Fig. 10

E. Enable PhotoView 360.

Step 1. If necessary, turn on PhotoView 360: click Tools Menu > Add-Ins.

Step 2. In the dialog box scroll down to **PhotoView 360** and place a check in the check box under **Active Add-Ins** and **Start-Up**, **Fig. 12**. Click OK.

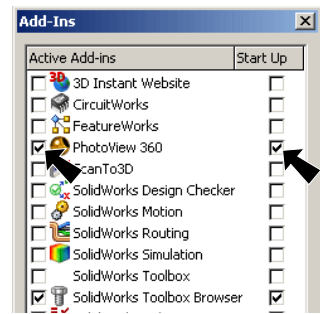
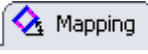



Fig. 12

F. Rotate Mapping.

Step 1. Click PhotoView 360 Menu > Edit Appearance.

Step 2. In Appearances:

click **Mapping** tab , **Fig. 13**
 set **Rotation 90**
 click OK , **Fig. 14**.

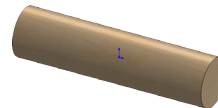


Fig. 14

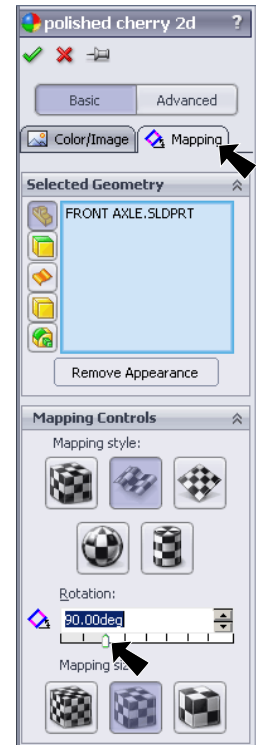


Fig. 13


G. Save as "REAR AXLE".

Step 1. Save. **Very important to save at this time.**
 Use **Ctrl-S** to save FRONT AXLE.

Step 2. Click File Menu > Save As.

Step 3. Key-in **REAR AXLE** for the filename.
 You now have two axle files, FRONT and REAR. Next, we change length of REAR axle.

H. Change Extrude Distance.

Step 1. Click **Boss-Extrude1** in the Feature Manager and click **Edit Feature**  in the menu, **Fig. 15**.

Step 2. Change **Depth**  **D1** to **3.95**
 click OK , **Fig. 16** and **Fig. 17**.

Step 3. Save. Use **Ctrl-S**.

You should have 2 Axles:
FRONT 1
REAR 3.95

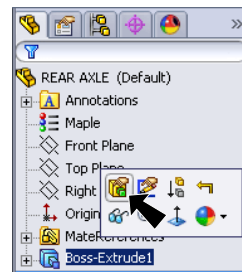


Fig. 15

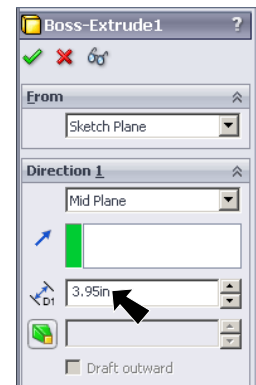


Fig. 16

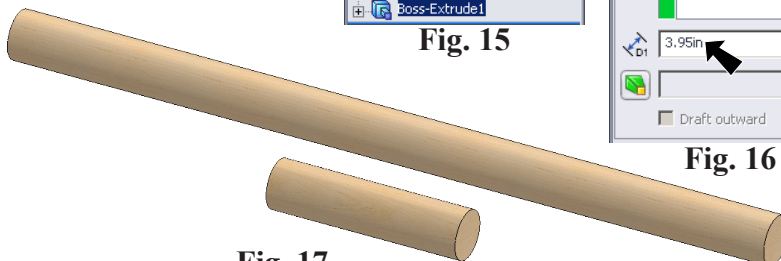


Fig. 17

Front
1 inch

Rear
3.95 inches