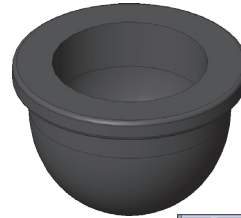


Skateboard Pivot Bushing



A. Sketch.

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

Step 2. Click **Front** (plane) in the Feature Manager and click **Sketch** from the Content toolbar, **Fig. 1**.

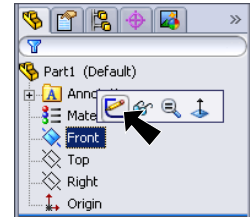


Fig. 1

Step 3. Click **Centerline** in the **Line flyout** (S) on the Sketch toolbar.

Step 4. Draw **three construction lines**. Start at **Origin** as shown in **Fig. 2**. **Double click** construction line to end chain.

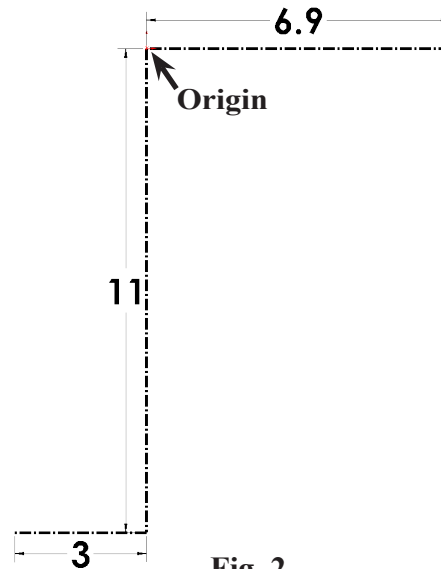


Fig. 2

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

Step 6. Dimension as shown in, **Fig. 2**.

Step 7. Click **Zoom to Fit** (F) on the View toolbar.

Step 8. Click **Line** (L) on the Sketch toolbar.

Step 9. Draw **line** as shown in **Fig. 3**.

Step 10. Click **Smart Dimension** (S) on the Sketch toolbar.

Step 11. Dimension line **3.5**, **Fig. 3**.

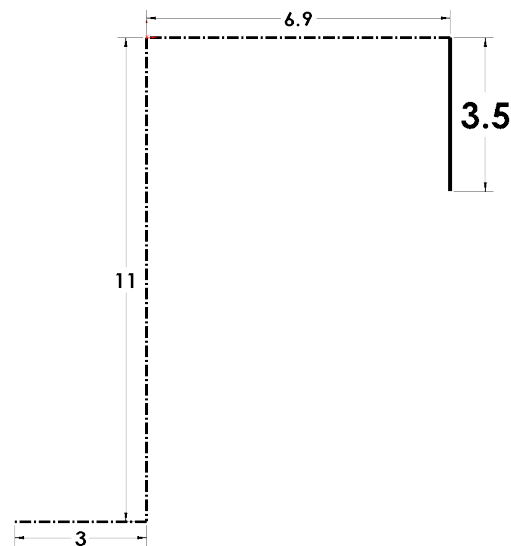




Fig. 3

B. Save as "PIVOT BUSHING".

Step 1. Click File Menu > Save As.

Step 2. Key-in **PIVOT BUSHING** for the filename and press ENTER.

C. Spline.

- Step 1. Click **Spline**  (S) on the Sketch toolbar.
- Step 2. Draw **2 point** spline between line and the bottom endpoint of construction line, **Fig. 4**. **Press Escape to end the spline.**
- Step 3. **Ctrl click spline and line** to select both, **Fig. 5**.
- Step 4. Click **Make Tangent**  on the Content menu, **Fig. 5**.
- Step 5. **Ctrl click spline and horizontal construction line at bottom** of sketch, **Fig. 6**.

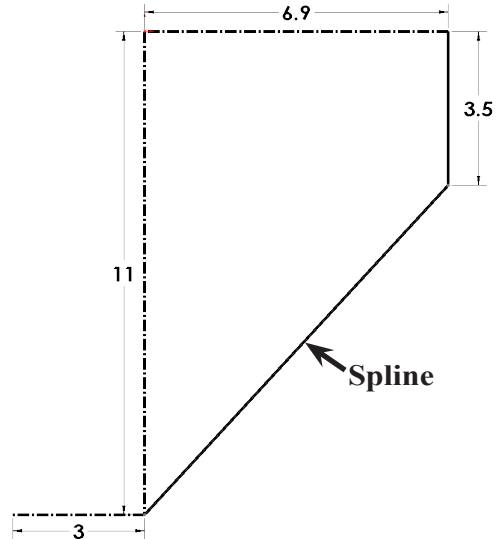


Fig. 4

- Step 6. Click **Make Tangent**  on the Content menu, **Fig. 6**.

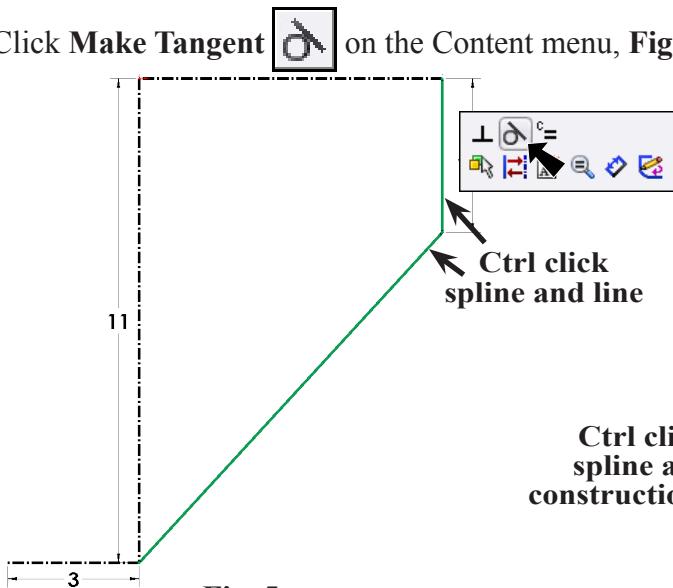


Fig. 5

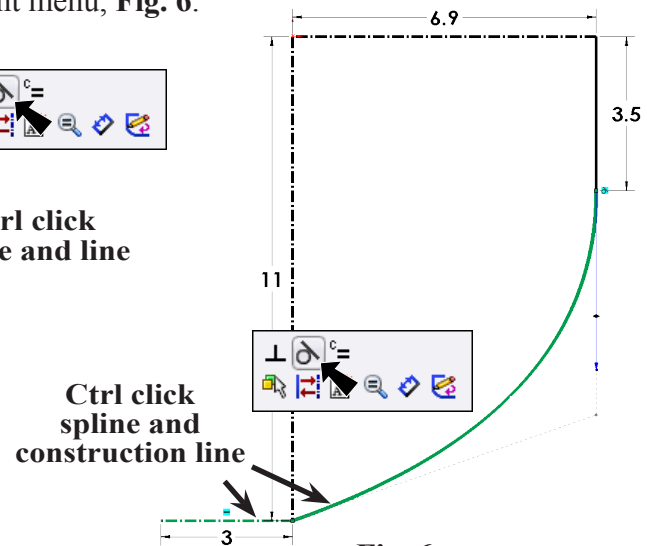



Fig. 6

D. Offset Entities.

- Step 1. Click **Offset Entities**  on the Sketch toolbar.

- Step 2. In the Offset Entities Property Manager set:

Distance  to 1.6 **Fig. 7**
check **Select chain**
click spline in sketch, **Fig. 8**

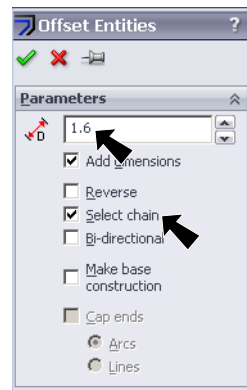



Fig. 7

The yellow offset should be left of original green spline, **Fig. 8**. If it is not, click Reverse. Click OK  when done.

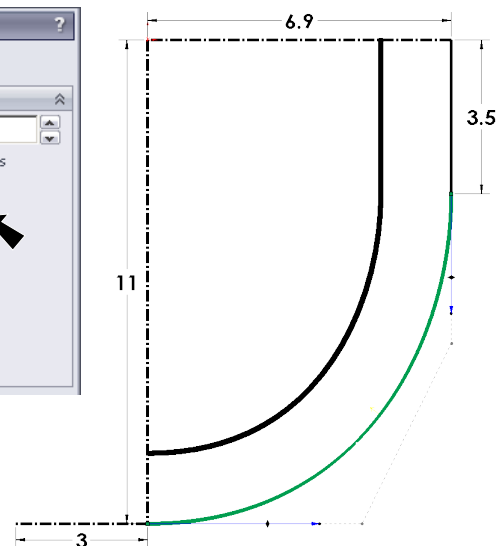


Fig. 8

E. Line.

Step 1. Click **Line**  (L) on the Sketch toolbar.

Step 2. Draw **three lines** as shown in **Fig. 9**.

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

Step 4. Dimension as shown in, **Fig. 9**.

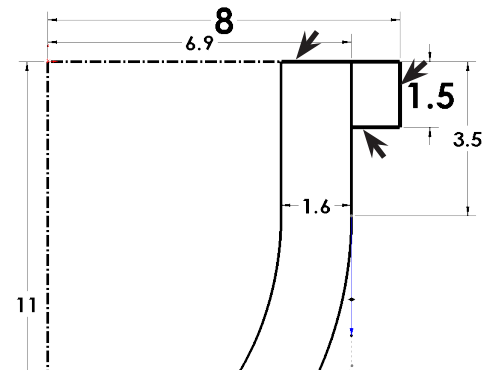





Fig. 9

F. Trim.

Step 1. Click **Trim Entities**  on the Sketch toolbar.

Step 2. In the Property Manger select **Corner Trim** , **Fig. 10**
Click **Position 1** and **2** to trim line, **Fig. 11**. Click OK .

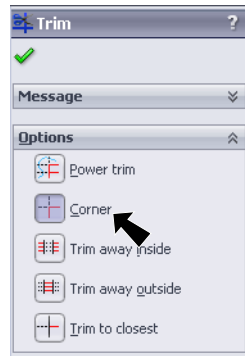


Fig. 10

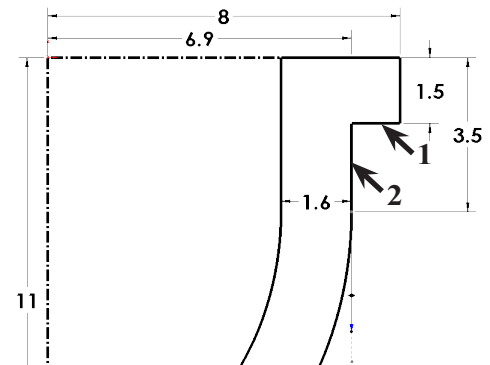
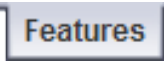





Fig. 11

G. Revolve.

Step 1. Click **Features**  on the Command Manager toolbar.

Step 2. Click **Revolved Boss/Base**  on the Features toolbar and **Yes to close sketch**.

Step 3. In the Revolve Property Manger for the **Axis of Revolution** , click the **vertical construction line** in sketch, **Fig. 12**.
Click OK .

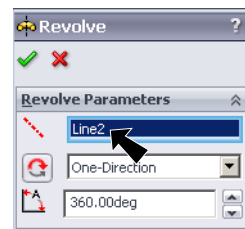


Fig. 12

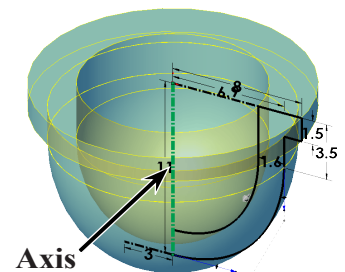




Fig. 13

H. Fillet Face.

Step 1. Click **Fillet**  on the Features toolbar.

Step 2. In the Fillet Property Manager:
set **Radius**  to **.3**
click **cylindrical face of lip**, **Fig. 14**
click OK .

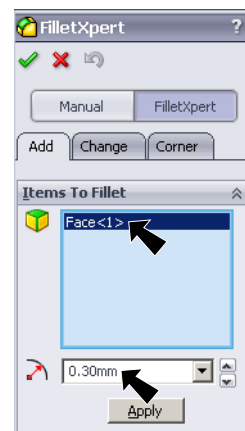


Fig. 15

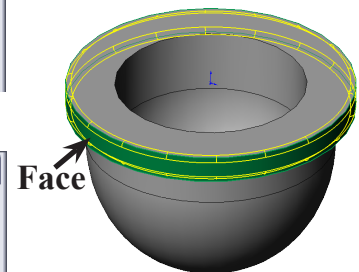


Fig. 14

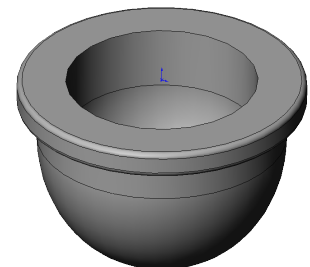




Fig. 16

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

I. Appearance.

Step 1. Click the part, click **Appearance Callout**  on the Content menu and click **PIVOT BUS...** , Fig. 17.

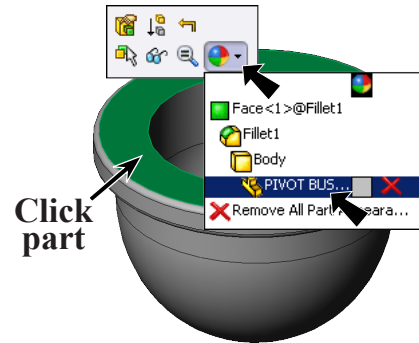



Fig. 17

Step 2. In the Appearances Task pane, expand **Rubber**, click **Gloss** and in the lower pane select **glossy rubber**, Fig. 18.

Step 3. In the Appearances Property Manager, under Color: click **gray swatch above black**, Fig. 19 and OK  in the Property Manager

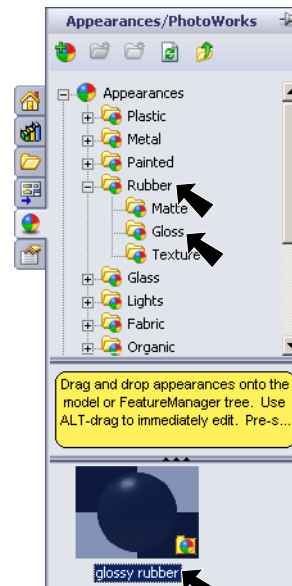


Fig. 18

Step 4. Save. Use **Ctrl-S**.

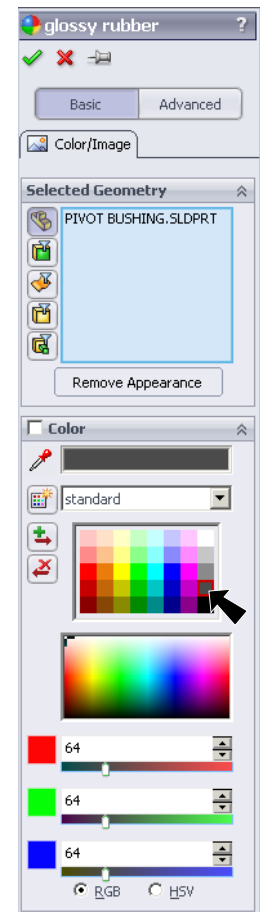


Fig. 19