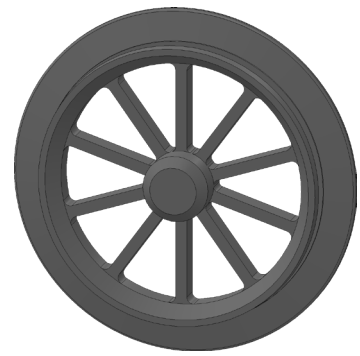




Chapter 10

Solar Train Rear Wheel



A. Save As.

Step 1. Open your **FRONT WHEEL** file.

Step 2. Click File Menu > Save As.

Step 3. In the Save As dialog box, key-in **REAR WHEEL** for filename and click Save.

B. Edit Revolve Sketch 1.

Step 1. Edit **Sketch1** . To edit, click **Revolve1** in the Feature Manager and click **Edit Sketch** in the context toolbar, **Fig. 1**.

Step 2. Click **Normal To** on the Standard Views toolbar. (**Ctrl-8**)

Step 3. Change dimensions: **OD 23** to **36.7**, **Fig. 2**.

Step 4. Click **Exit Sketch** on the Sketch toolbar.

Step 5. Save (**Ctrl-S**).

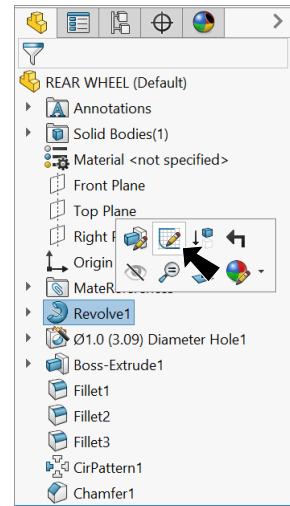


Fig. 1

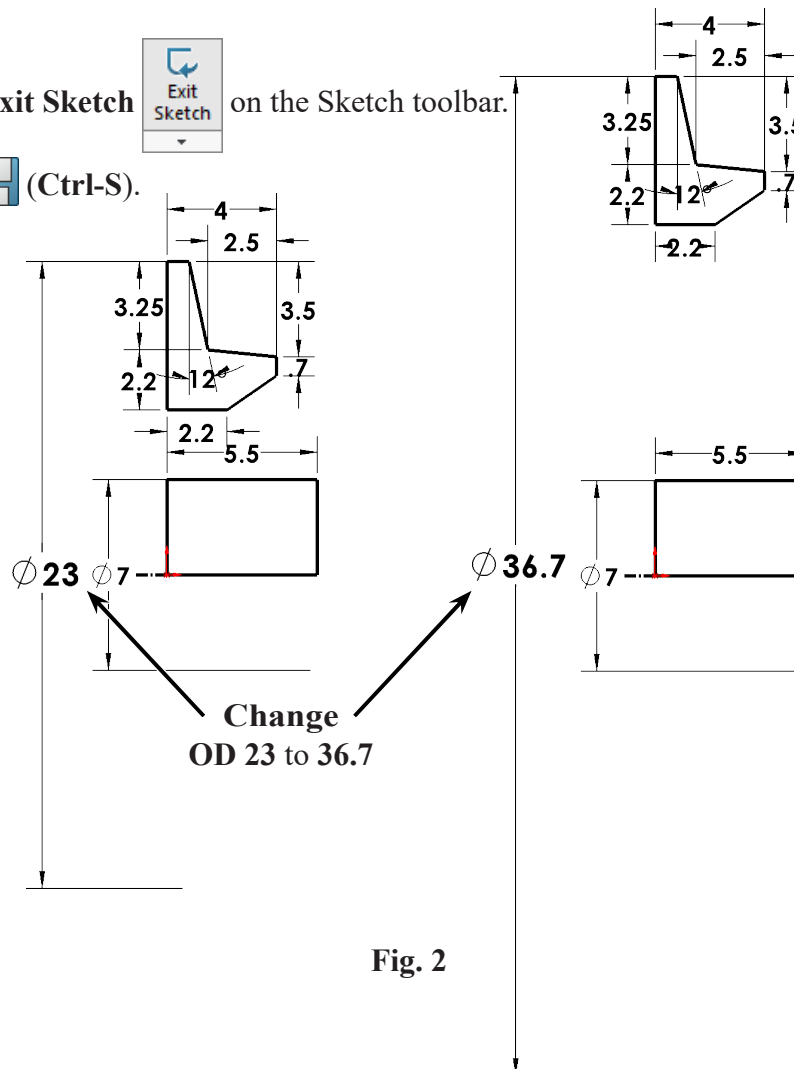


Fig. 2

C. Edit Boss-Extrude Sketch4.

Step 1. Edit Sketch4 . To edit, click **Boss-Extrude1**  in the Feature Manager and click **Edit Sketch**  in the context toolbar, **Fig. 3**.

Step 2. Click **Normal To**  on the Standard Views toolbar. (**Ctrl-8**)

Step 3. Change dimensions: **both .45 to .6**, **Fig. 4**.

Step 4. Click **Exit Sketch**  on the Sketch toolbar.

Step 5. Save  (**Ctrl-S**).

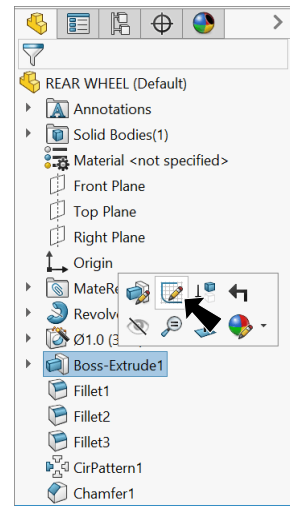


Fig. 3

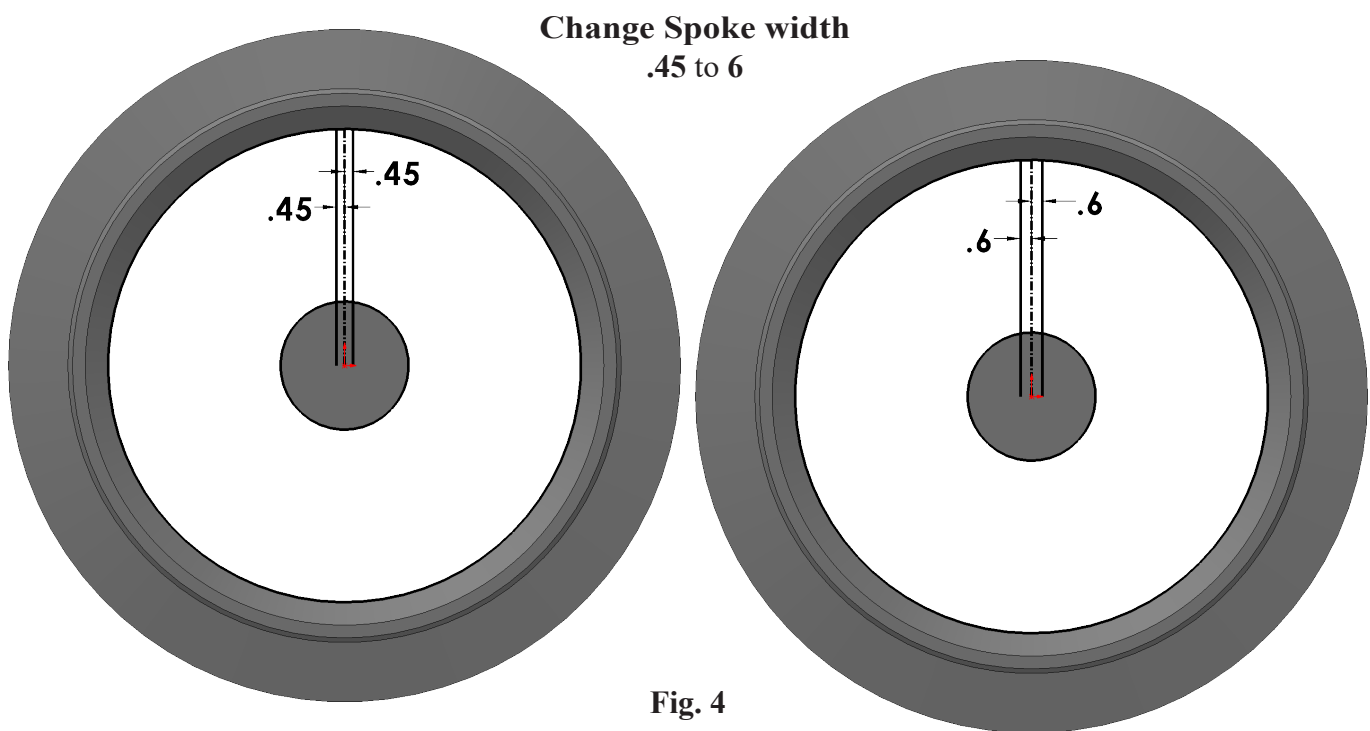


Fig. 4

D. Edit Circular Pattern1.

Step 1. Edit **CirPattern1**. To edit, click **CirPattern1** in the Feature Manager and click **Edit Feature** in the context toolbar, **Fig. 5**.

Step 2. In the CirPatteren Property Manager change:
under Direction 1, **Fig. 6**

Number of Instances 10
click OK.

Step 3. Save (Ctrl-S).

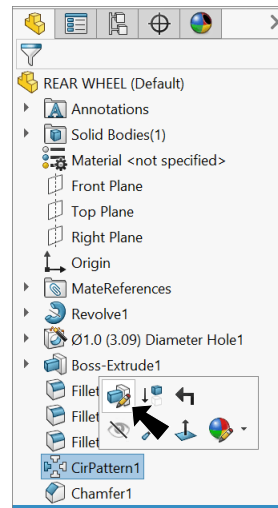


Fig. 5

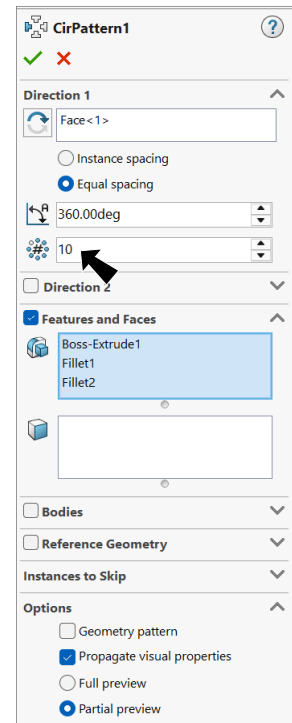


Fig. 6

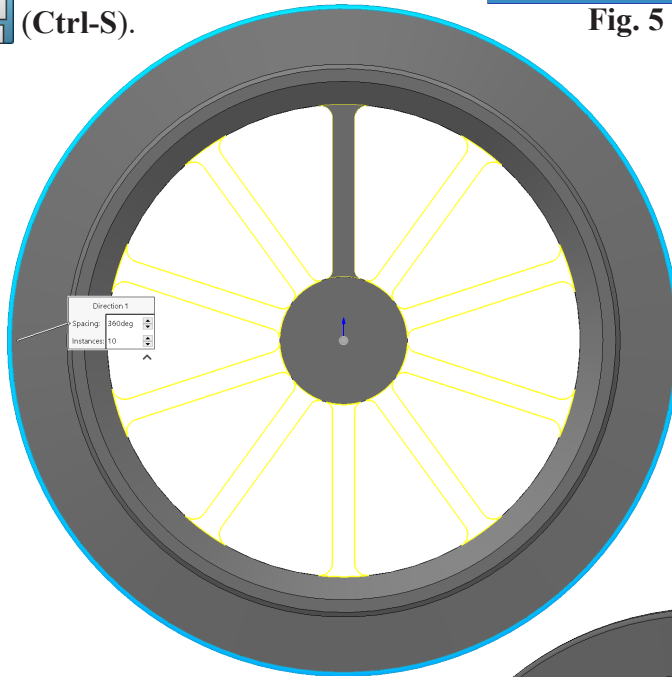


Fig. 7

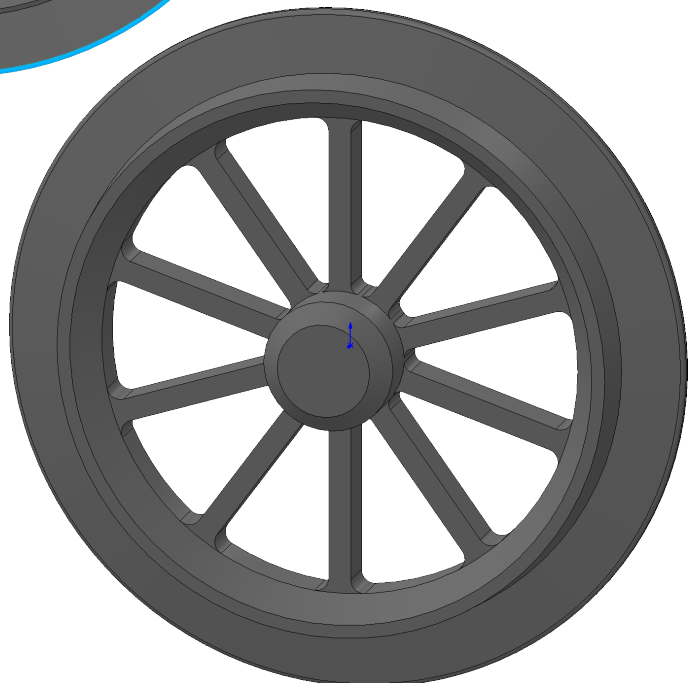


Fig. 8

E. Cut Groove.

Step 1. Click **Front Plane**  in the Feature Manager and click **Sketch**  on the context toolbar, **Fig. 9**.

Step 2. Click **Normal To**  on the Standard Views toolbar. (**Ctrl-8**)

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

Step 4. Sketch **circle above Wheel**, **Fig. 10**.

Step 5. Click **Line**  (L) on the Sketch toolbar.

Step 6. Sketch **line from circle horizontal quadrant point** , **across and back down to other quad point** , **Fig. 11**.

Step 7. Click **Centerline**  in the **Line flyout**  on the Sketch toolbar.

Step 8. Sketch **horizontal centerline** from Origin , **Fig. 12**.

Step 9. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 10. Add dimensions, **Fig. 13**.

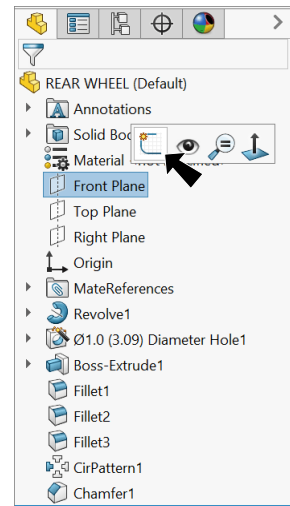


Fig. 9

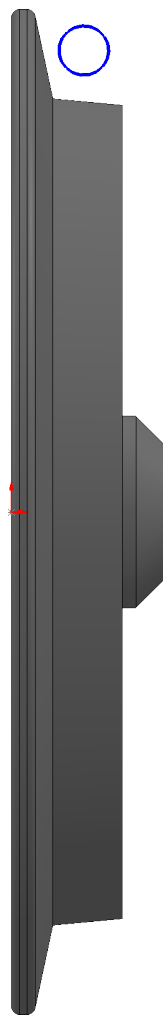


Fig. 10

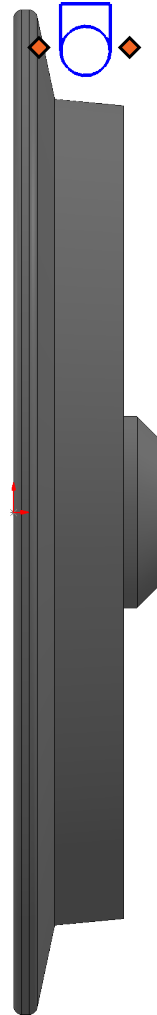


Fig. 11

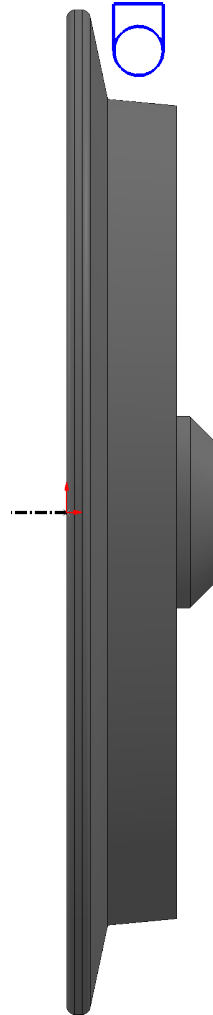


Fig. 12

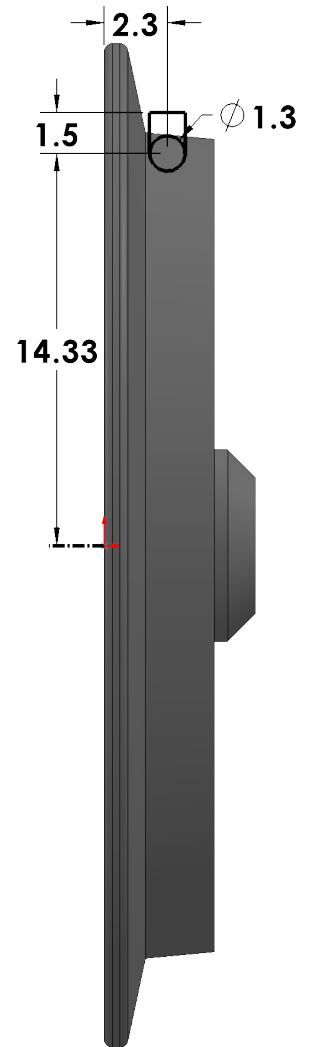
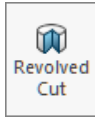


Fig. 13

Step 11. Click **Isometric**  on the Standard Views toolbar. (**Ctrl-7**)

Step 12. Click **Features**  on the Command Manager toolbar.

Step 13. Click **Revolved Cut**  on the Features toolbar.

Step 14. In the Cut-Revolve Property Manger set:

- under Axis of Revolution  horizontal centerline will be selected, **Fig. 14**
- uncheck **Thin Feature**
- under Selected Contours
- click the **two contours**, **Fig. 15**
- click OK .

Step 15. Save  (**Ctrl-S**).

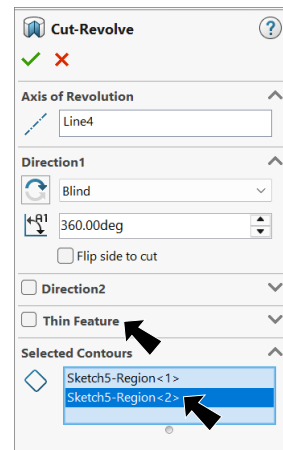


Fig. 14

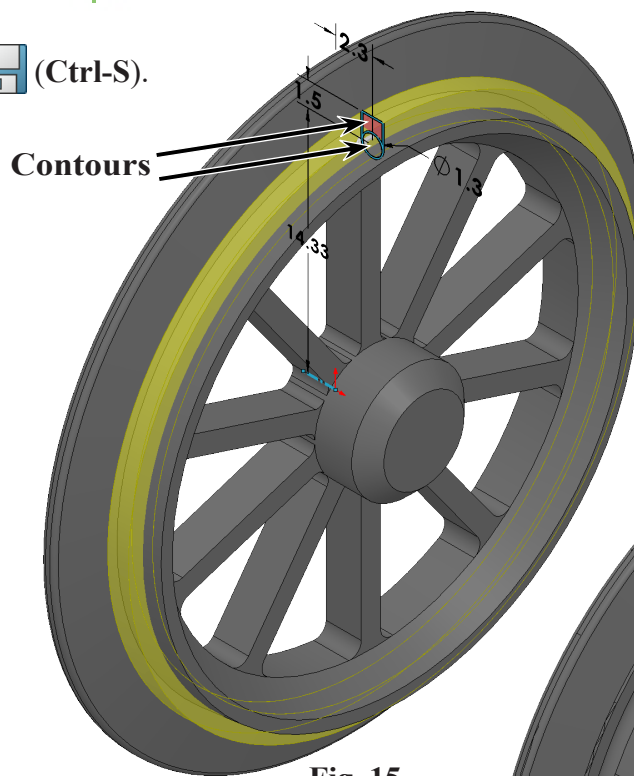


Fig. 15

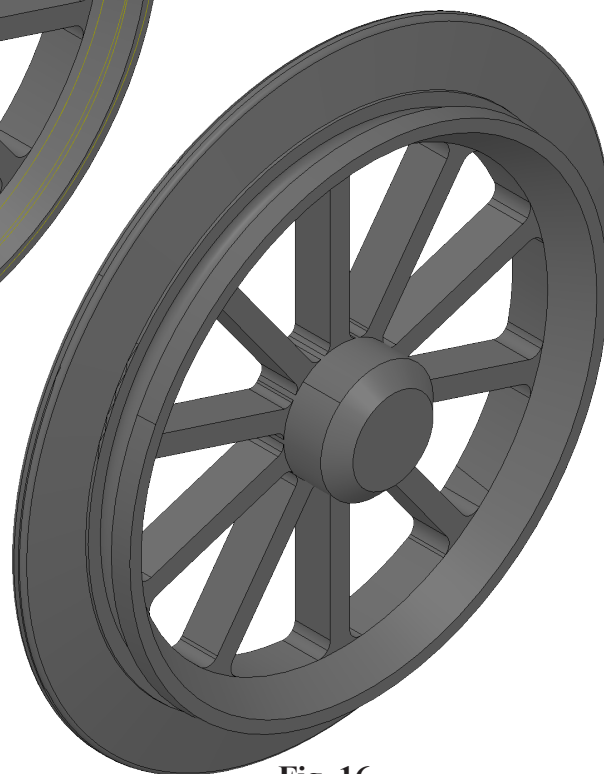


Fig. 16