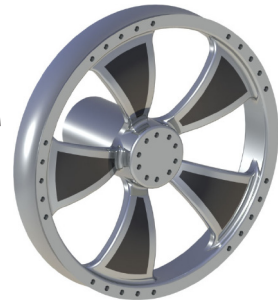





# CO2 Rail Car Front Rim Spokes



## A. Save As.

- Step 1. If necessary, open your **REAR RIM SPOKES** file.
- Step 2. Click File Menu > Save As.
- Step 3. Key-in **FRONT RIM SPOKES** for filename and click Save, **Fig. 1**.

## B. Edit Revolve1 Sketch.

- Step 1. Click **Revolve1**  in the Feature Manager and **Edit Sketch**  from the context toolbar, **Fig. 1**.
- Step 2. Click **Normal To**  on the Standard Views toolbar. (**Ctrl-8**)
- Step 3. Change dimensions: **top 16.8 to 3.6**  
**bottom 16.8 to 10.8**

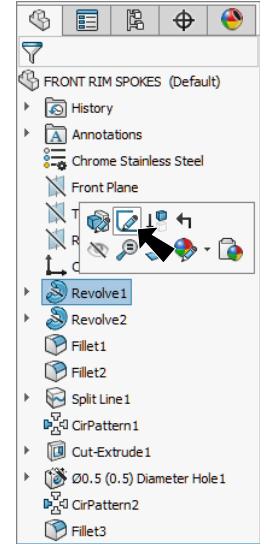
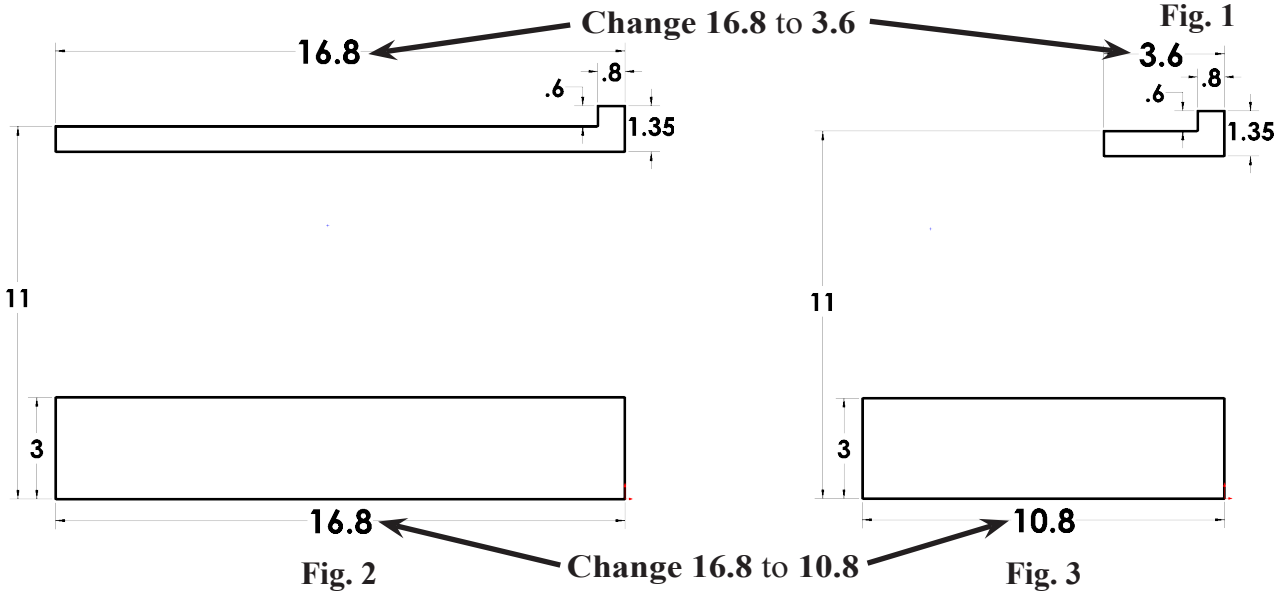


Fig. 1



- Step 4. Zoom in around **top of rim**, **Fig. 4**. To zoom, place the cursor over the top of rim and spin the wheel on mouse back. While spinning the wheel keep cursor on top of rim.

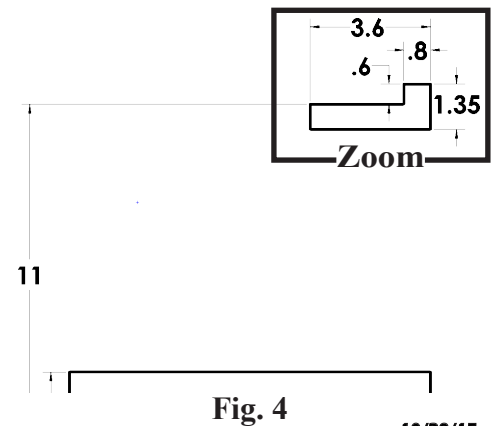


Fig. 4

Step 5. **Delete two lines, Fig. 5.** To delete, Ctrl click the two lines and press Delete key.

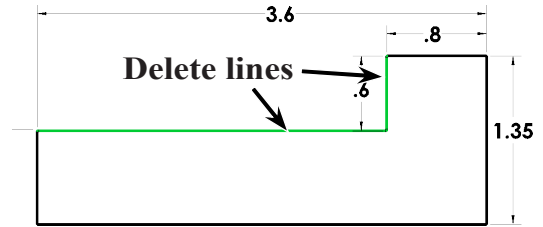
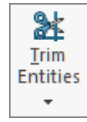


Fig. 5

Step 6. Click **Trim Entities** (S) on the Sketch toolbar.




Step 7. In the Trim Property Manger: under Options, **Fig. 6**

select **Corner**



Click left vertical line and top horizontal to extend gap closed, **Fig. 7.**  
Results shown in **Fig. 8.**

Click OK  when done.

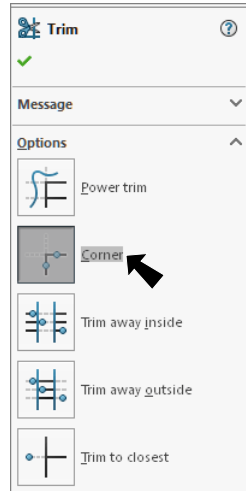


Fig. 6

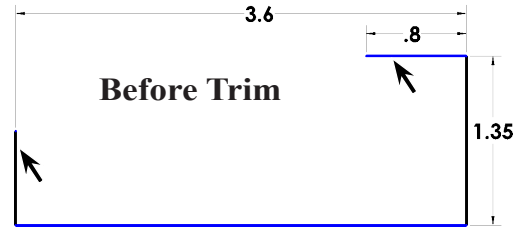


Fig. 7

Step 8. Click **3 Point Arc** (S) in the **Arc flyout** on the Sketch toolbar.

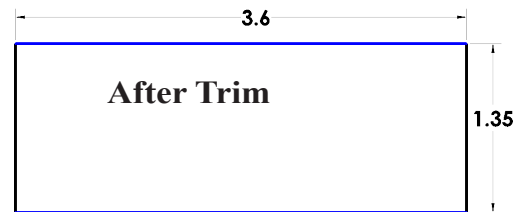


Fig. 8

Step 9. Sketch an arc between the Position 1, Position 2 and Position 3, **Fig. 9.**

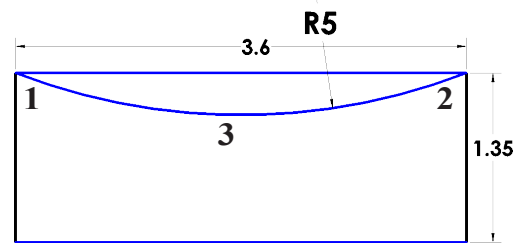
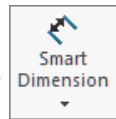


Fig. 9

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



Step 11. Dimension arc **radius 5, Fig. 10.**

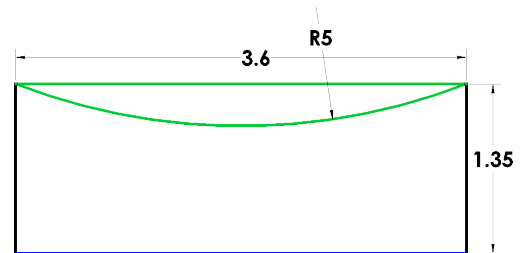


Fig. 10

Step 12. Click Tools Menu > Sketch Tools > Replace Entity.

Step 13. In the Replace Entity Property Manger: under Selection, **Fig. 10**

Replace this entity:  
click **top horizontal line,**  
**Fig. 11**

With this one:  
click **arc**

click OK .

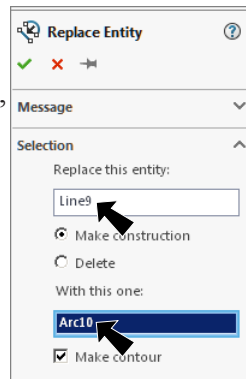


Fig. 10

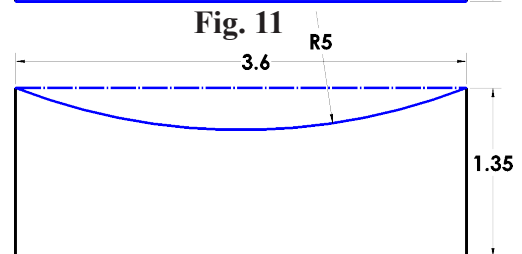
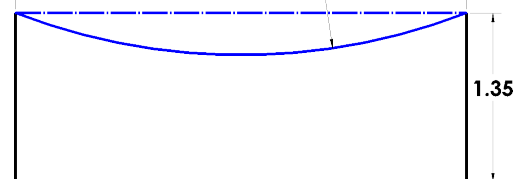


Fig. 11



Step 14. Click **Zoom to Fit**  (F) on the View toolbar.

Step 15. Dimension **radius of rim 13.3**, **Fig. 13**.

Step 16. Click **Exit Sketch**  on the Sketch toolbar.

Step 17. Save. Use **Ctrl-S**.

Step 18. You should now have two rim spoke files: Front and Rear.

