




# CO<sub>2</sub> Rail Car Wheel Assembly

## A. Insert Rim and Tire.

- Step 1. Click File Menu > New, click **Assembly Metric** and OK.
- Step 2. Click **Keep Visible**  in the Property Manager, **Fig. 1**.
- Step 3. Click **Browse** in the Property Manager, **Fig. 1**.
- Step 4. Select your **RIM** file and click Open.
- Step 5. Click OK  in the Property Manager. This will place Rim origin at the assembly origin and fix the position so Rim cannot move. This fixed component should have a **(f)** before its name in the Feature Manager.
- Step 6. Click **Browse** in the Property Manager, **Fig. 1**.
- Step 7. Select your **TIRE** file and click Open.
- Step 8. Click approximately where Tire is positioned in **Fig. 2**. Click OK  in the Property Manager when done.

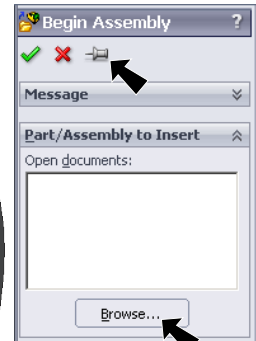


Fig. 1



Fig. 2

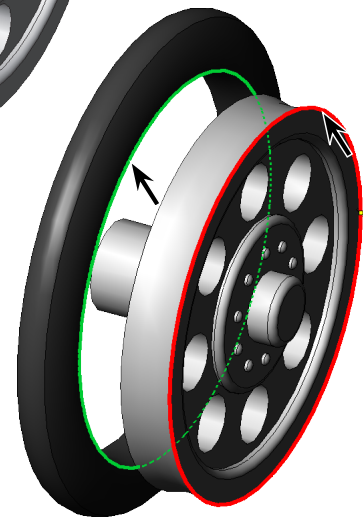





Fig. 3

## B. Save as "FRONT WHEEL ASSEMBLY LX".

- Step 1. Click File Menu > Save As.
- Step 2. Key-in **FRONT WHEEL ASSEMBLY LX** for the filename and press ENTER.

## C. Mate: Tire to Rim.

- Step 1. Click **Mate**  on the Assembly toolbar.
- Step 2. Click **edge of Tire** and **edge of Rim**, **Fig. 3**.
- Step 3. If you select the wrong entity, **right click** the Mate Selection in the Mate Property Manager and click **Clear Selections**, **Fig. 4**.
- Step 4. Click **Add/Finish Mate**  to add **Coincident** mate and OK  in the Property Manager when done.

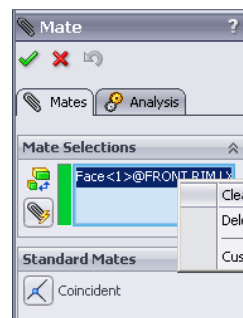


Fig. 4

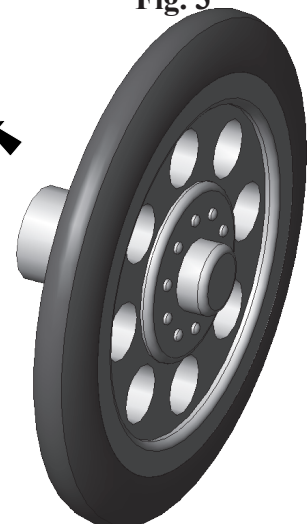



Fig. 5

## D. Mate Reference.

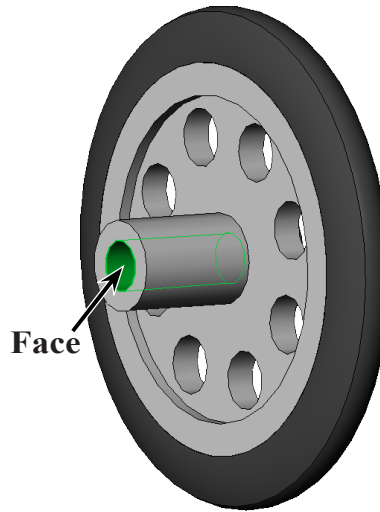
Step 1. Rotate view slightly to view **inside of rim**, hold down middle mouse button (wheel) and drag to rotate view, **Fig. 6**.

Step 2. Click the **inside cylindrical face of axle hole** to select it, **Fig. 6**.

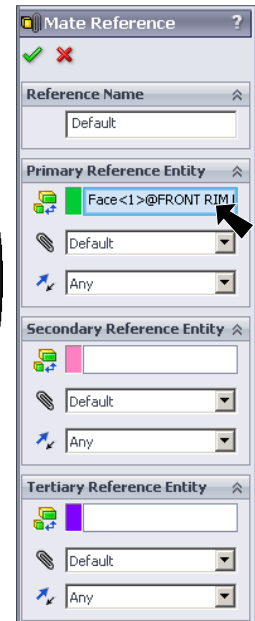
Step 3. Click **Reference Geometry**  on the Features toolbar and **Mate Reference** from the menu.

Step 4. In the Mate Reference Property Manager click OK , **Fig. 7**.

Step 5. Save. Use **Ctrl-S**.



**Fig. 6**



**Fig. 7**