

Stake Bed Pickup Truck Truck Assembly

A. Open Truck Assembly File Insert Wheel Assembly.

Step 1. Open your TRUCK Assembly file.

Step 2. Click **Insert Components**  on the Assembly toolbar.

Step 3. Click **WHEEL ASSEMBLY** file and click Open from the Open dialog box.

Step 4. Click to place Wheel Assembly as positioned in **Fig. 1**.

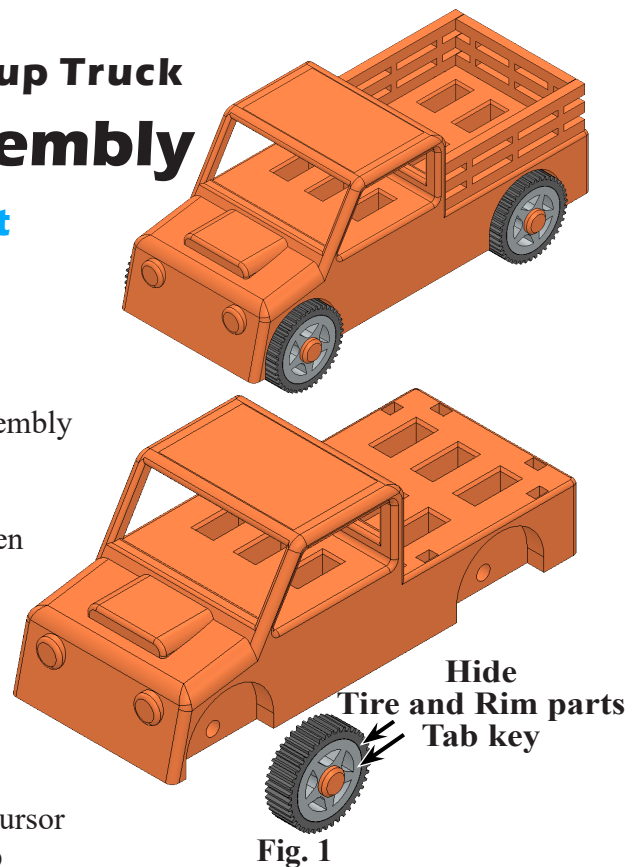




Fig. 1

B. Mate: Wheel Assembly.

Step 1. **Hide Tire and Rim**  parts. To hide, move cursor over component in graphics area and press **Tab** key to hide, **Fig. 1**.

Step 2. Click **Mate**  on the Assembly toolbar.

Step 3. Click **cylindrical face of Axle hole in Truck** and a **cylindrical face of Axle**, **Fig. 2**.

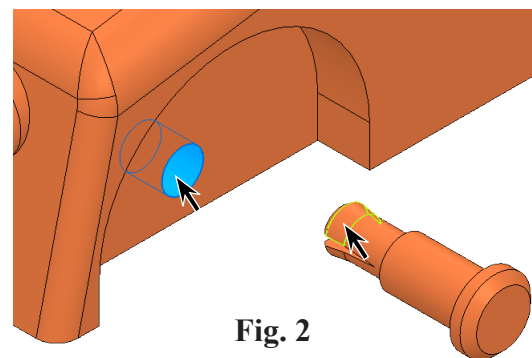


Fig. 2

Step 4. Click Add/Finish Mate  to add a **Concentric** mate.

Step 5. Click **side face of wheel well in Truck** and **hide outside cylindrical side face of Axle**, click **inside face of flat boss on Axle**, **Fig. 3**. To hide face, hover cursor over face and press **Alt** key.

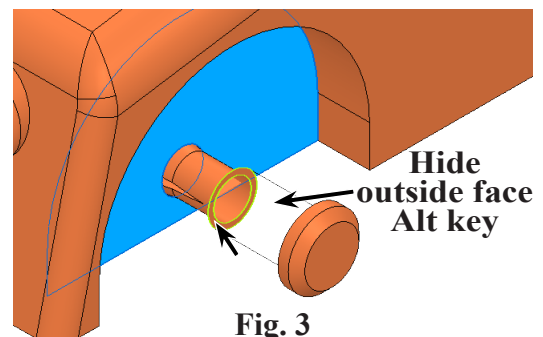


Fig. 3

Step 6. Click Add/Finish Mate  to add a **Coincident** mate.

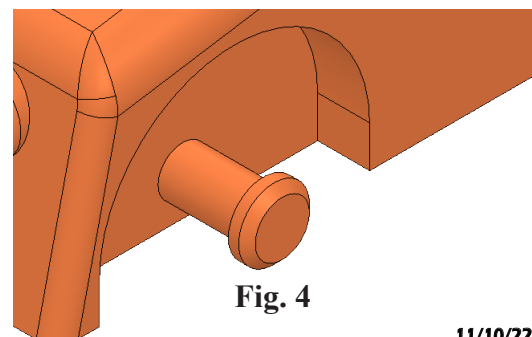



Fig. 4

Tip: If Alt key does not hide face, turn off enhanced graphics performance. Click **Options**  on the Standard toolbar. Under System Options, Performance, **uncheck Enhanced Graphics Performance**.

Step 7. Click OK  in the Property Manager.

C. Copy with Mates Wheel Assembly.

Step 1. Click **Show Hidden Components** on the Assembly toolbar.

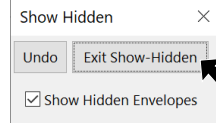


Fig. 6

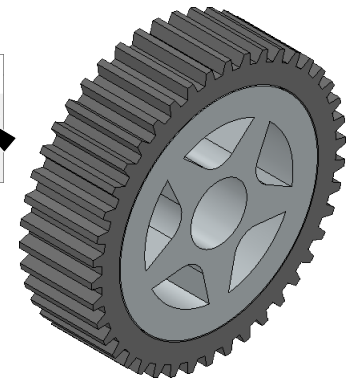


Fig. 5

Step 2. In the Show Hidden dialog box:
click the hidden components: **Rim and Tire**, Fig. 5
click **Exit Show-Hidden** Exit Show-Hidden, Fig. 6.

Step 3. **Right click Wheel Assembly** in the Feature Manager and click **Copy with Mates** on menu, Fig. 7.

Step 4. In the Copy with Mates Property Manager:
Step 1: Select Component, Fig. 8
Preselected
click **Next**

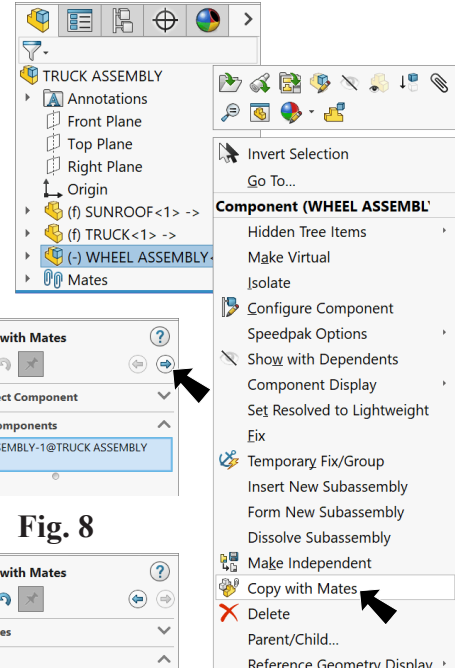


Fig. 7

Step 5. Still in Copy with Mates Property Manager:
Step 2: Mates, Fig. 9
under Mates
Concentric1 click **cylindrical face of rear Axle hole**, Fig. 10
Coincident1 check **Repeat**
click **OK** and click **Cancel** .

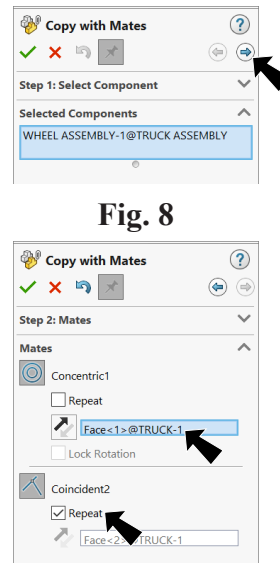


Fig. 9

Step 6. Save (Ctrl-S).

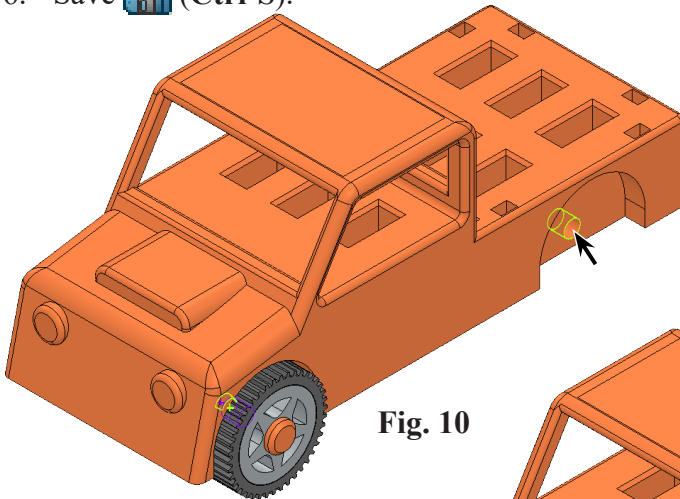


Fig. 10

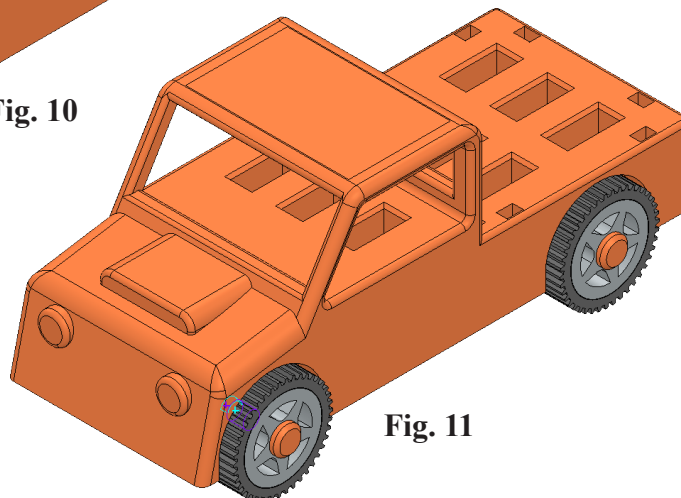



Fig. 11

D. Insert Rear Rail.

Step 1. Click **Insert Components**  on the Assembly toolbar.

Step 2. Click **REAR RAIL** file and click Open from the Open dialog box.

Step 3. In the Insert Component Manager set:
 check **Show Rotate content toolbar**, **Fig. 12**
 click **Rotate Component about Y**  in the Rotate content toolbar to **rotate 90°**, **Fig. 13**
 click to place Rear Rail as positioned in **Fig. 14**.

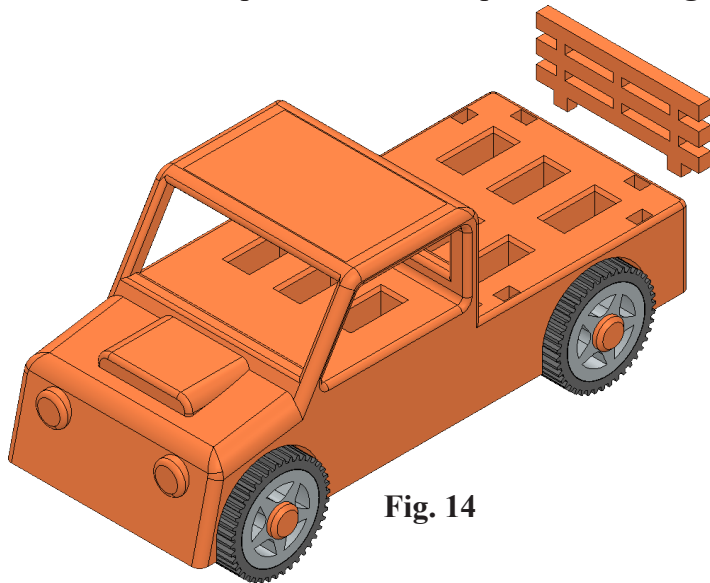
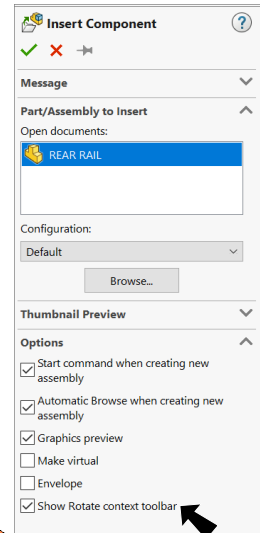


Fig. 14

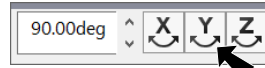


Fig. 13

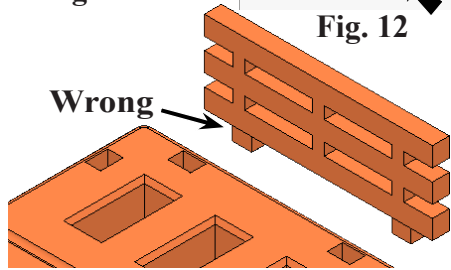
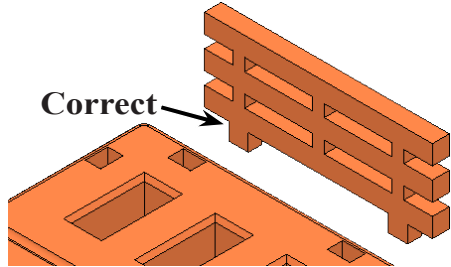




Fig. 12




Correct

E. Mate: Rear Rail.

Step 1. Click **Right Plane**  in the Feature Manager and **Mate**  on the context toolbar, **Fig. 15**.

Step 2. Expand the flyout Feature Manager design tree, expand **REAR RAIL** and click **FRONT Plane** , **Fig. 16**.

Step 3. Click Add/Finish Mate  to add a **Coincident** mate.

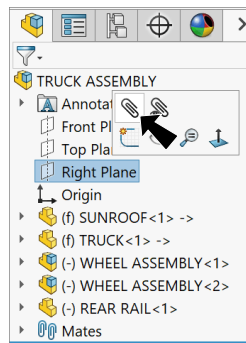


Fig. 15

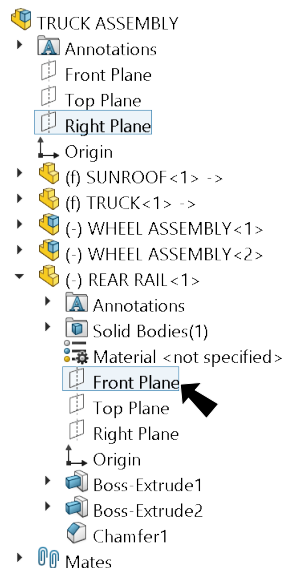


Fig. 16

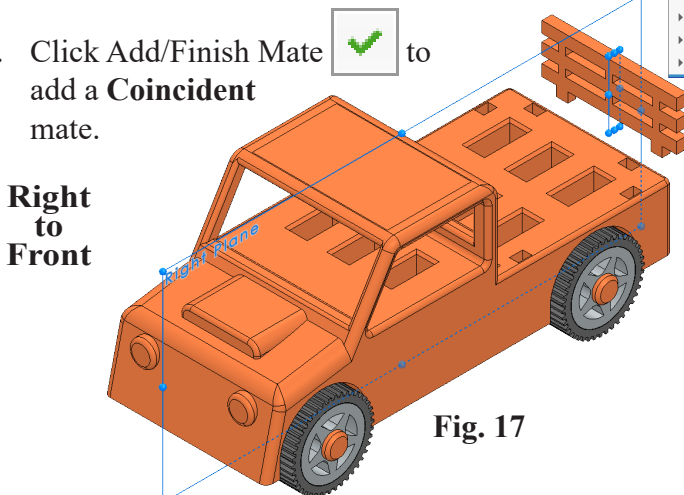

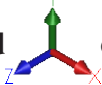





Fig. 17


Step 4. Click **top face of Truck bed** and **hide side face of Rail**, click **bottom face of Rail** (not stake), **Fig. 18**. To hide face, hover cursor over face and press **Alt** key.

Step 5. Click Add/Finish Mate  to add a **Coincident** mate.

Step 6. Rotate view to **view rear**, **Fig. 19**. To rotate view, in bottom left corner of graphics area **Shift** click the **Y axis of the Reference Triad**  **one time**.

Step 7. Click **rear side face of Truck bed** and **side face of Rear Rail**, **Fig. 19**.

Step 8. Click **Distance**  in Mate pop-up, **Fig. 20**. Set **distance 1** and press **ENTER**. The Rail should be 1mm from side of Truck, **Fig. 21**. If positioned in opposite direction, click **Flip Dimension**  in the Mate pop-up. Click Add/Finish Mate  to add Distance mate.

Step 9. Click **OK**  in the Property Manager.

Step 10. Save  (**Ctrl-S**).

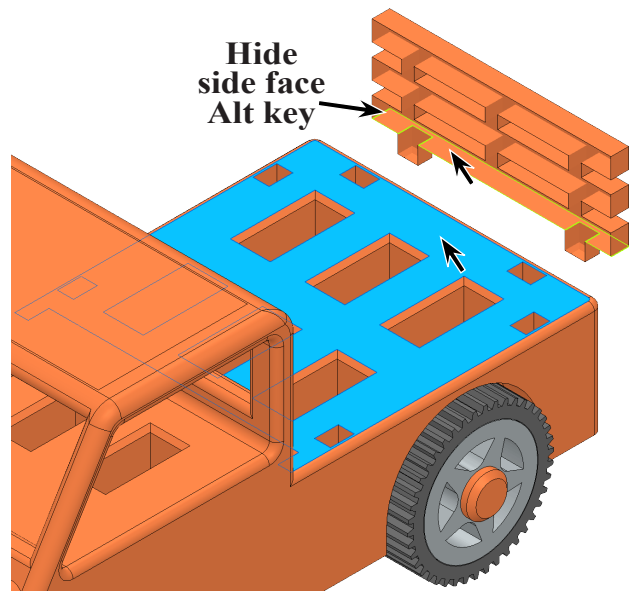


Fig. 18

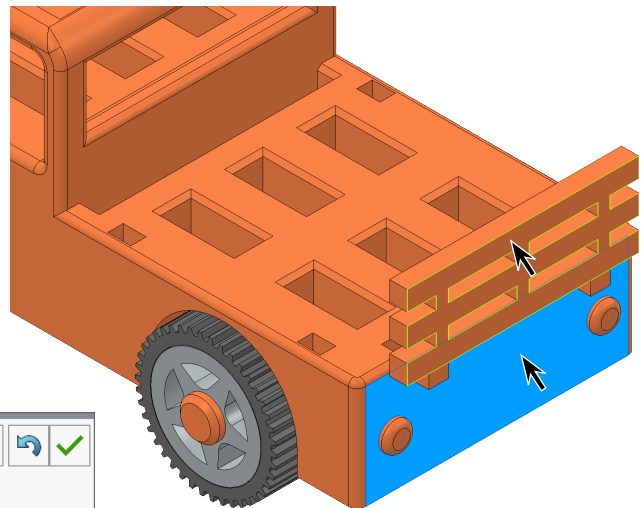


Fig. 19



Fig. 20

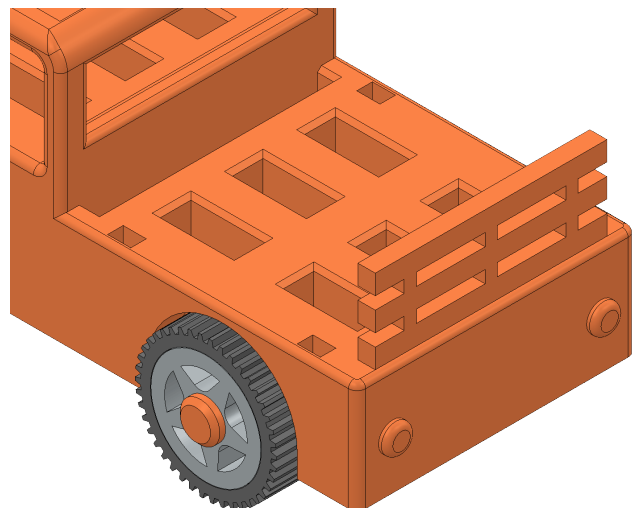


Fig. 21

F. Insert Side Rail.

Step 1. Click **Insert Components**  on the Assembly toolbar.

Step 2. Click **SIDE RAIL** file and click Open from the Open dialog box.

Step 3. Click to place Side Rail as positioned in **Fig. 22**.

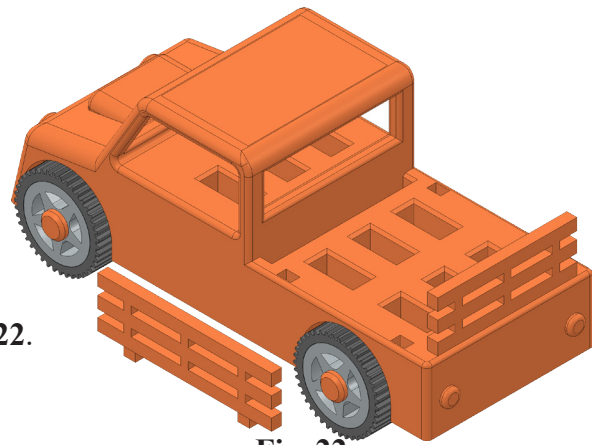



Fig. 22

G. Mate: Side Rail.

Step 1. Click **Mate**  on the Assembly toolbar.

Step 2. Click **top face of Truck bed** and **hide side face of Side Rail**, click **bottom face of Side Rail**. To hide face, hover cursor over face and press **Alt key**, **Fig. 23**.

Step 3. Click **Add/Finish Mate**  to add a **Coincident** mate.

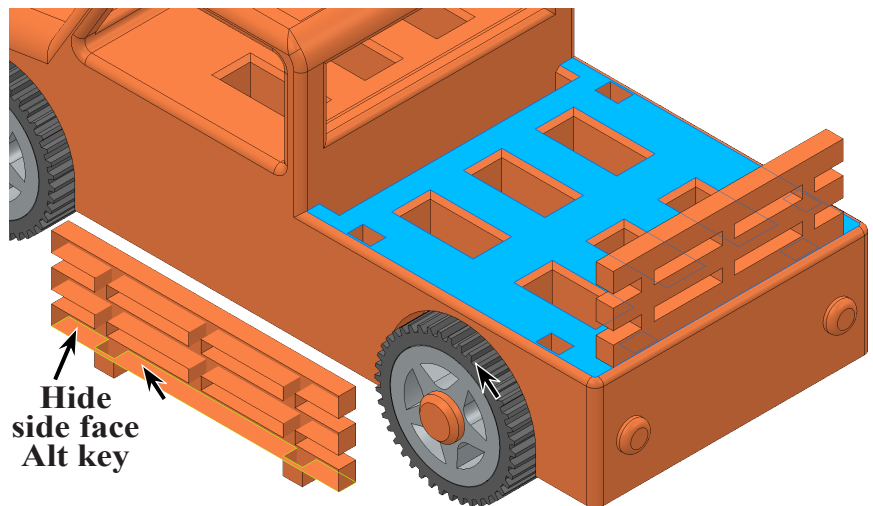
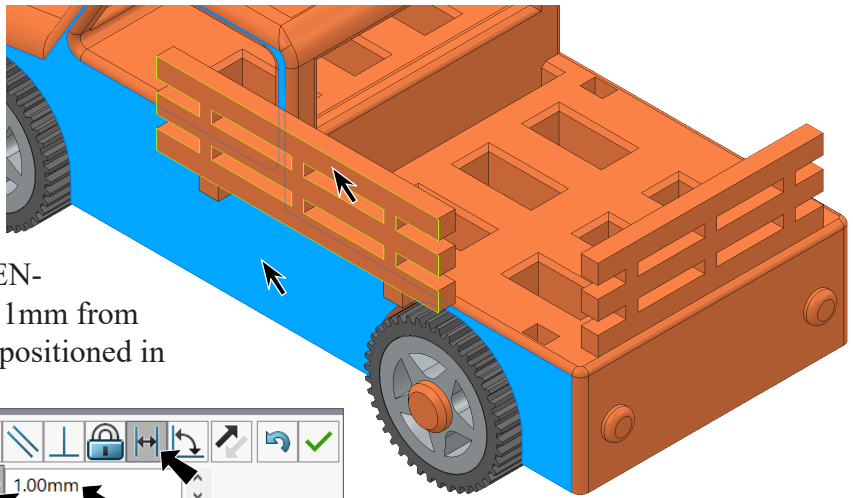

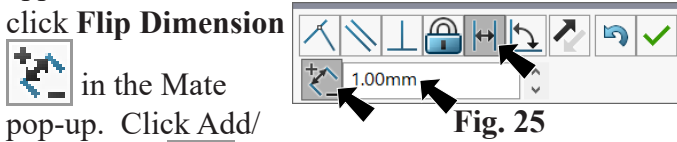




Fig. 23

Step 4. Click **side face of Truck bed** and **side face of Side Rail**, **Fig. 24**.

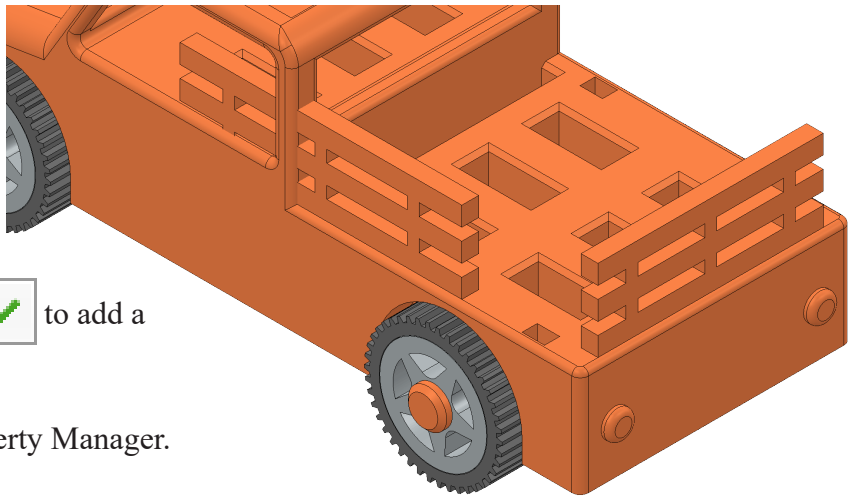



Step 5. Click **Distance**  in Mate pop-up, **Fig. 25**. Set **distance 1** and press **ENTER**. The Rail should be 1mm from side of Truck, **Fig. 26**. If positioned in opposite direction, click **Flip Dimension**



 in the Mate pop-up. Click **Add/Finish Mate**  to add Distance mate.

Step 6. Click **end face of Side Rail** and **rear face of Rear Rail**, **Fig. 27**.



Step 7. Click **Add/Finish Mate**  to add a **Coincident** mate.

Step 8. Click **OK**  in the Property Manager.

Step 9. Save  (**Ctrl-S**).

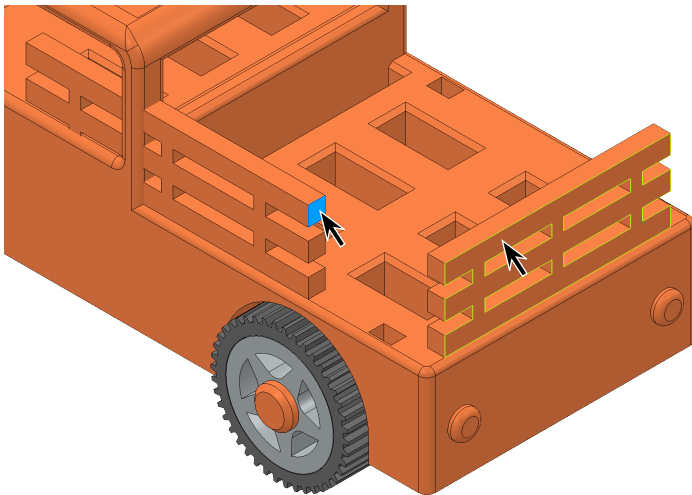


Fig. 27

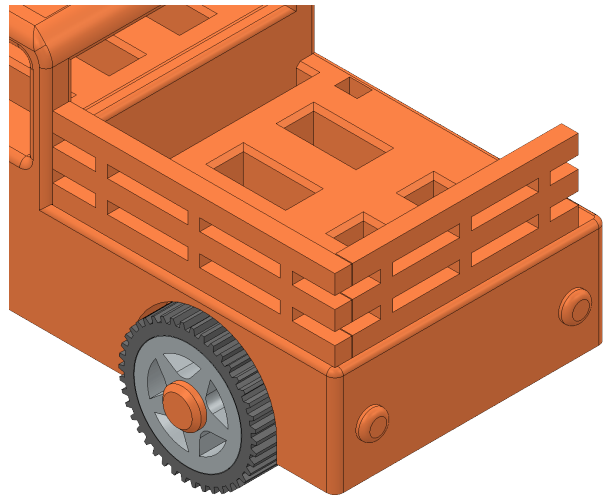


Fig. 28

H. Mirror Components.

Step 1. **Hide Truck** component.

To hide, move cursor over component in graphics area and press **Tab** key, **Fig. 29**.

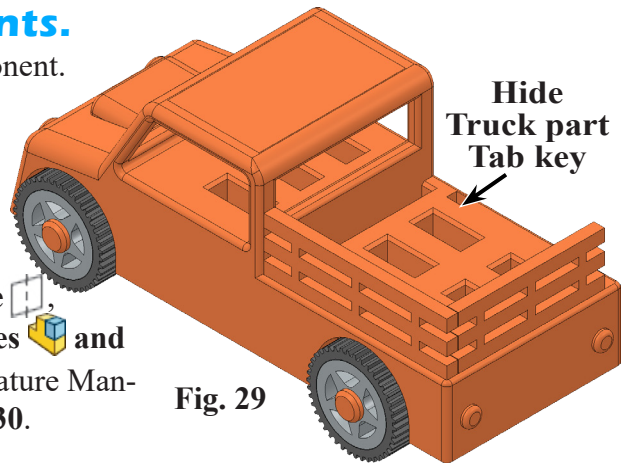


Fig. 29

Step 2. **Ctrl click Right Plane** both **Wheel Assemblies** and **Side Rail** in the Feature Manager to select all, **Fig. 30**.

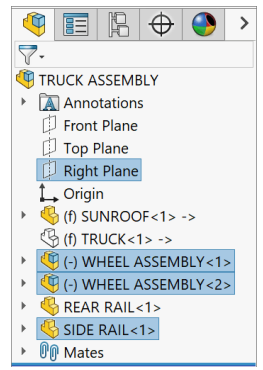


Fig. 30

Step 3. Click **Mirror Components** in the **Linear Component Pattern flyout** on the Features toolbar.

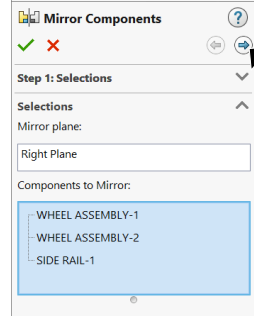
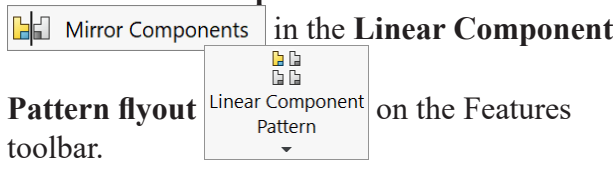


Fig. 31

Step 4. In the Mirror Property Manager: Step 1: Selections all were preselected click **Next**, **Fig. 31**

Step 5. Still in Mirror Property Manager: Step 2: Set Orientation Confirm the Side Rails are positioned with flush side on inside, **Fig. 33** click **OK**.

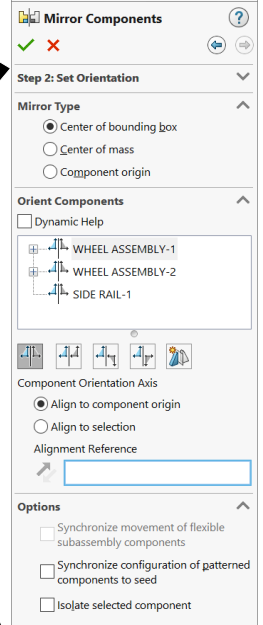


Fig. 32

Step 6. **Show Truck** component. To show, move cursor over the component in graphics area and press **Shift - Tab**.

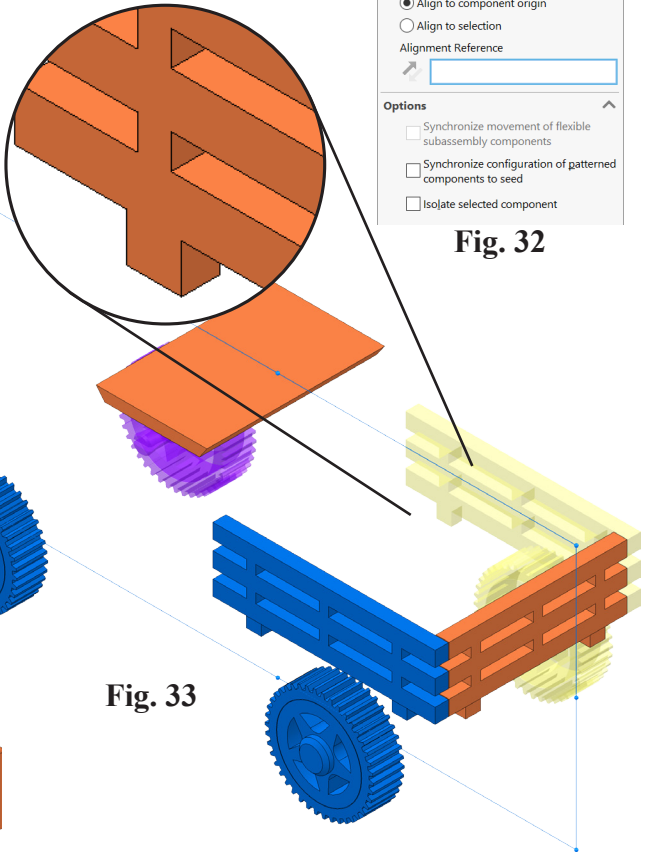


Fig. 33

Step 7. **Save** (**Ctrl-S**).

Show Truck part Shift-Tab

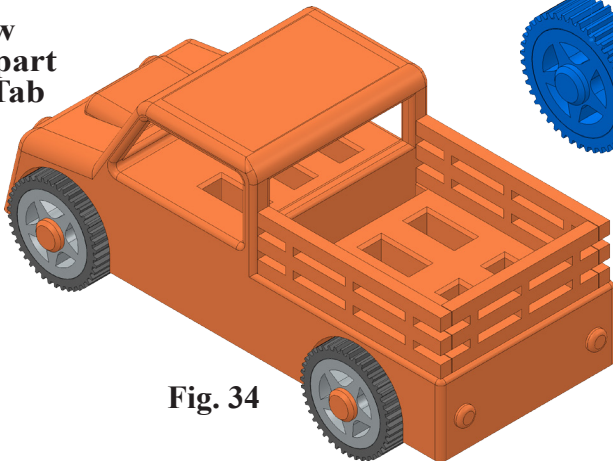


Fig. 34