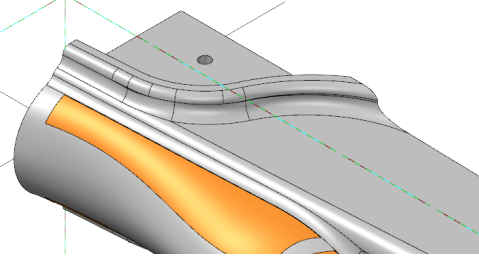


# **SOLIDWORKS 16 to Mastercam 2017** **2016**

## **A. Open File in Mastercam 2017.**

Step 1. If necessary, save your **Body** file in SOLIDWORKS.

**Tip:** If using newer version of SOLIDWORKS than Mastercam, such as SW 2108 and Mastercam 2017, save your body in SW as a **Parasolid Binary (\*.x\_b)** then open in Mastercam as Parasolid Binary file.

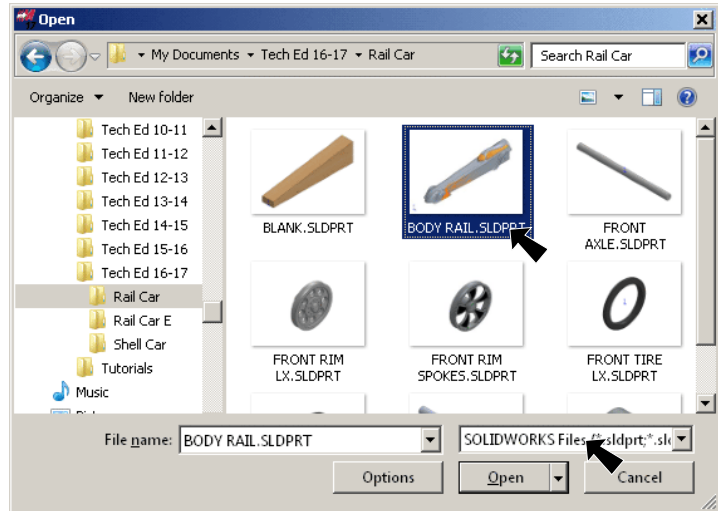


Step 2. In Mastercam 2017, click **Open**



(**Ctrl-O**) on the Quick Access Toolbar QAT.

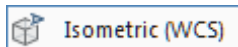
Step 3. In the Open dialog box set **Files of type** to **SOLIDWORKS Files**, select your **BODY RAIL** file and click Open, **Fig. 1**.



**Fig. 1**

Step 4. Change to the Isometric View.

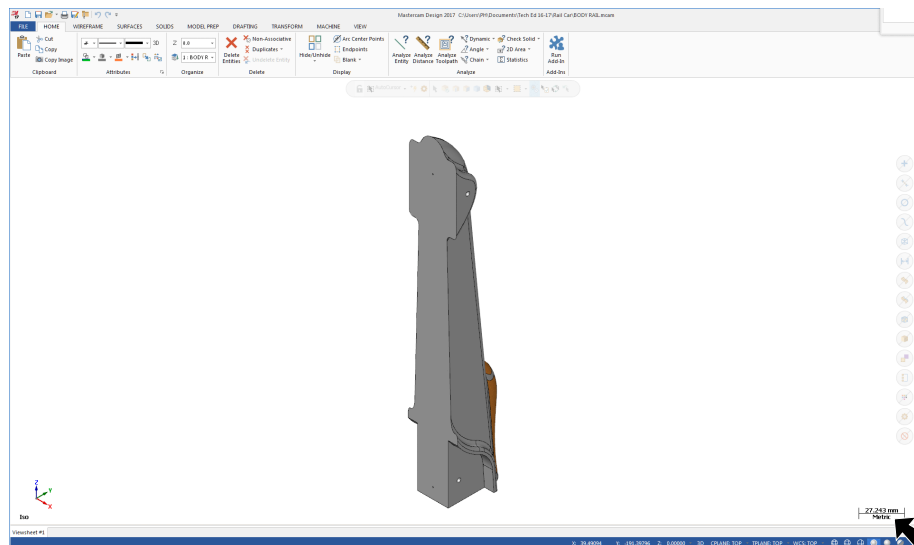
**Right click** in the graphics window and click



(**Alt-7**).

## **B. Confirm Units are Metric.**

Step 1. Confirm in the bottom right corner of the display units are **Metric**, **Fig. 2**.



**Fig. 2**

## **C. Save Your File.**

Step 1. Click **Save As**



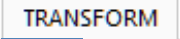
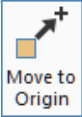
(**Ctrl-Shift-S**) on the Quick Access Toolbar QAT.

Step 2. Key-in **RAIL BODY E** for the filename and press **ENTER**.

## D. Move to Origin.


Step 1. Use **Ctrl-T** to toggle **Translucency**.


Step 2. Display the origin. Use **F9** to toggle axes, **Fig. 3**.

Step 3. On the Transform tab  click **Move to Origin** .

Step 4. Press the **C** key on keyboard to configure Auto Cursor behavior of your cursor to snap to **Arc Center**.

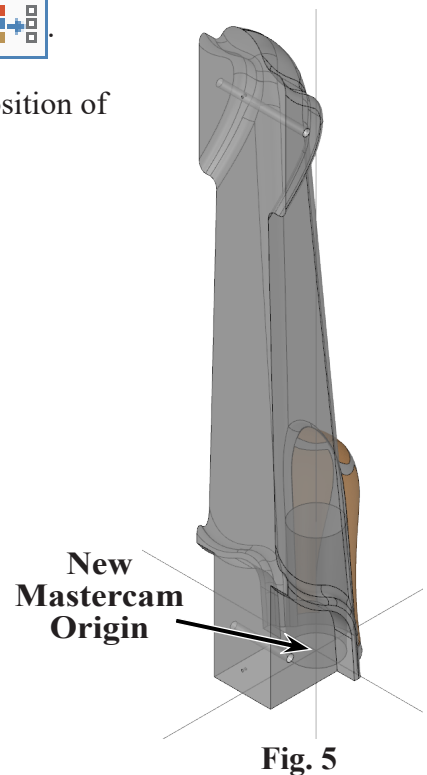
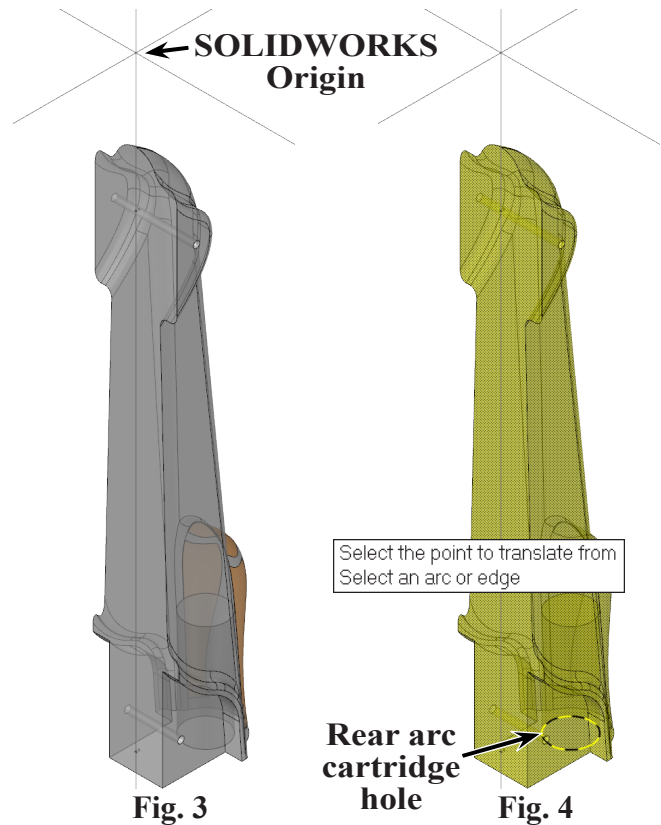
Step 5. Click **arc of rear edge of cartridge hole** as point to translate from, **Fig. 4**. Be sure to select arc of hole.

Step 6. **Right click** the graphics window and click **Fit**  (**Alt-F1**).

Step 7. **Right click** the graphics window and click **Clear Colors** .

Step 8. Confirm **center of cartridge hole at rear of car** as new position of origin, **Fig. 5**.

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



## E. Create WCS LEFT CUT Plane.

Step 1. In the Planes Manager:

Click **Create a new plane**  drop down and select **From solid face**, Fig. 6.

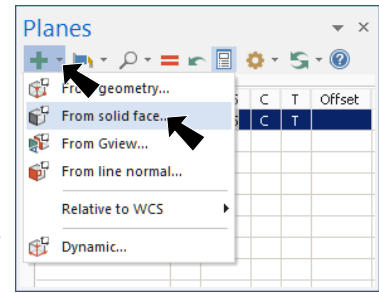


Fig. 6

Step 2. Click **flat side face (fender)** of the solid body to select, Fig. 7.

Step 3. In the Select plane dialog box, Fig. 8, set X axes to point to the front of body and Z axes to point out way from body, Fig. 9. This should be **Plane 2**, Fig. 8.

Click OK  in the Select plane dialog box.

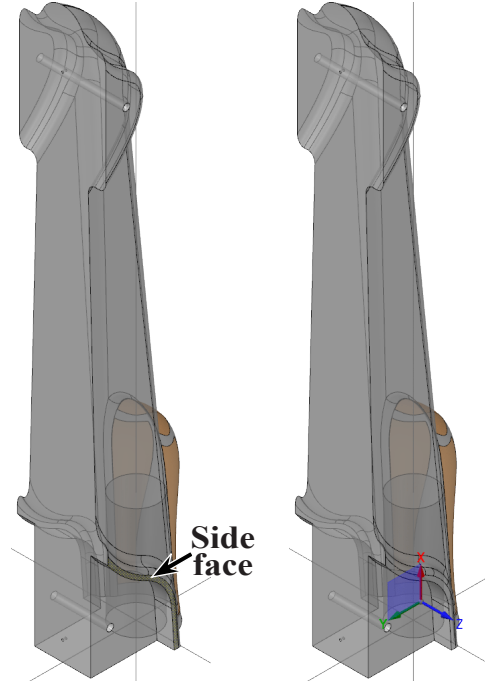


Fig. 7

Fig. 9

Step 4. In the New Plane dialog box set:

Key-in **LEFT CUT** for name, Fig. 10

**Origin X 0**

**Origin Y 0**

**Origin Z 34**

Click OK .

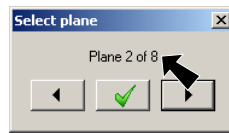



Fig. 8

Step 5. Back in the Planes Manager:

Click **Set All** , Fig. 11 and Fig. 12.

Step 6. Change to the Isometric View. **Right click** in the graphics window and click **Isometric (WCS)** (Alt-7).

Step 7. Confirm origin **Fig. 13**.

Step 8. Save  (Ctrl-S).

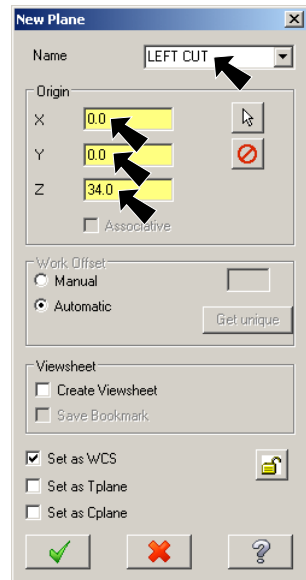


Fig. 10

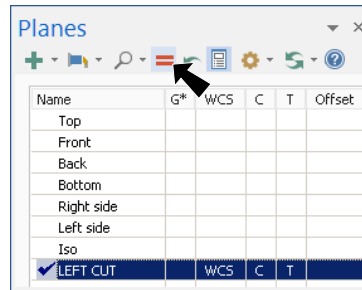


Fig. 11

**LEFT CUT Origin**

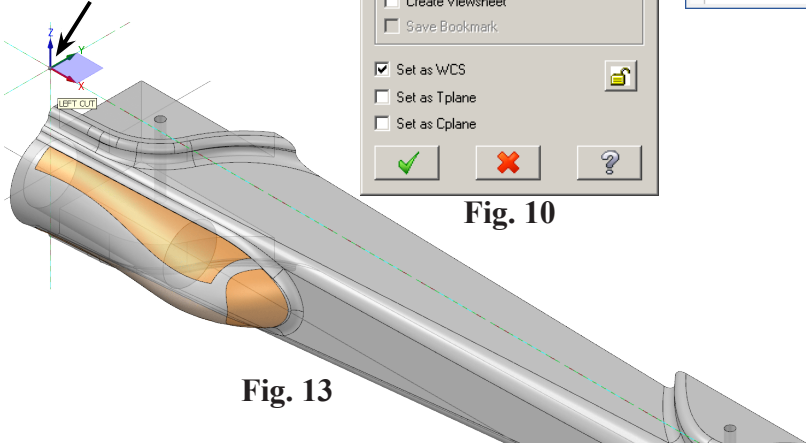


Fig. 13

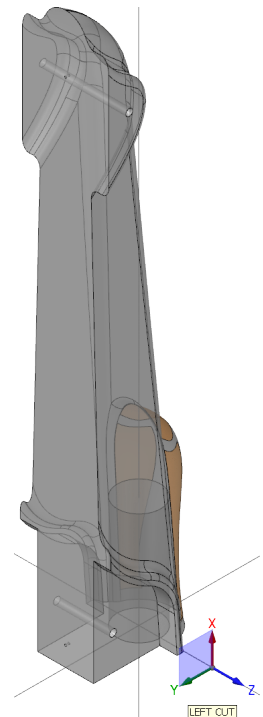


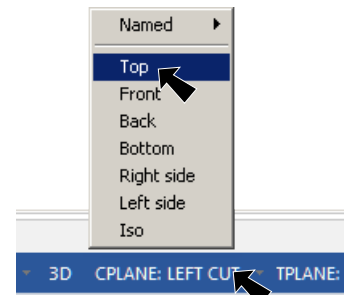
Fig. 12

## F. Create Check Rectangle.

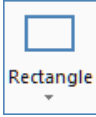
Step 1. Use **Ctrl-T** to toggle **Translucency**.

Step 2. Toggle axes off. Use **F9**.

Step 3. Click **CPLANE** in Status bar at bottom of the graphics window and click **Top** from the menu, **Fig 14**.



**Fig. 14**

Step 4. On the Wireframe tab **WIREFRAME** click Rectangle 

Step 5. In the Rectangle function panel:

under Setting, **Fig. 15**

check **Anchor to center**

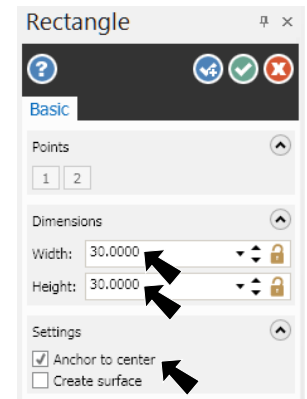
under Dimensions

**Width 30**

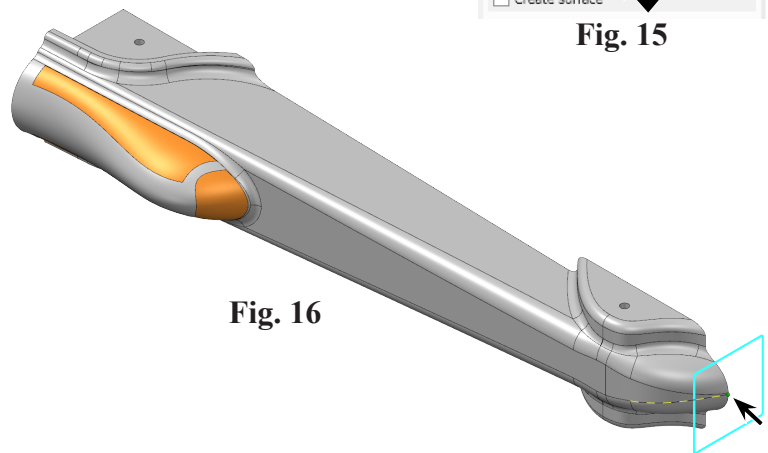
**Height 30** and press **ENTER**

Click the **most forward vertex** of the Body **Fig. 16**.

Click OK .



**Fig. 15**



**Fig. 16**

## G. Create Check Solid.

Step 1. On the Solids tab  click **Extrude** .

Step 2. Click Chain  in Chaining dialog box, **Fig 17**.

Step 3. Click **rectangle** to chain, **Fig 18**.

Step 4. Click OK  in Chaining dialog box.

Step 5. In the Solid Extrude function panel:  
under Operation, **Fig. 19**  
select **Create body**  
under Distance

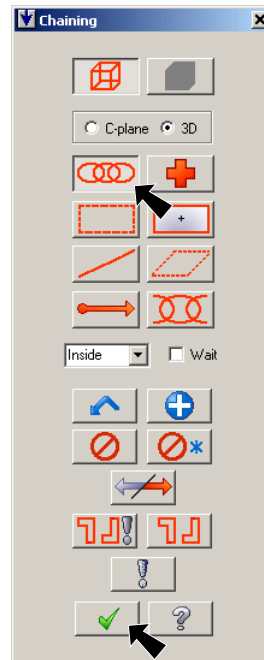
**Distance 5** and press **ENTER**

The direction arrow should **point to rear**, **Fig. 20**.

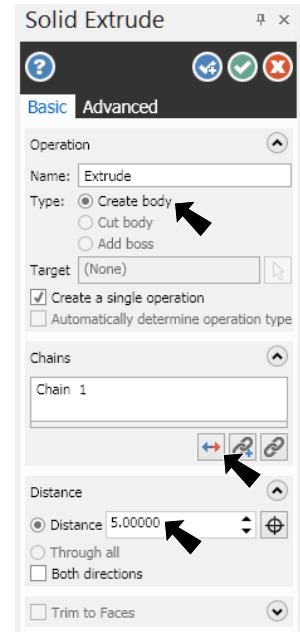
If arrow points in wrong direction, click

Reverse All , **Fig. 19**.

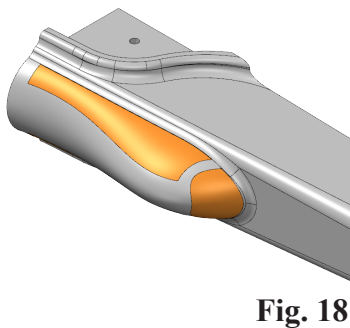
Click OK .



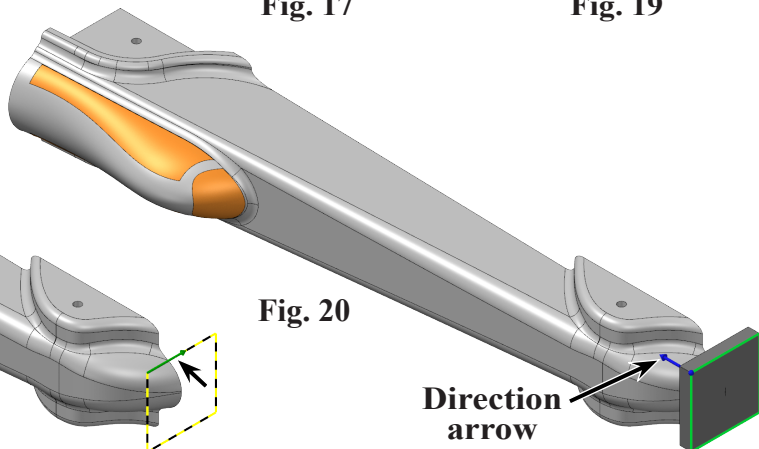
**Fig. 17**



**Fig. 19**



**Fig. 18**



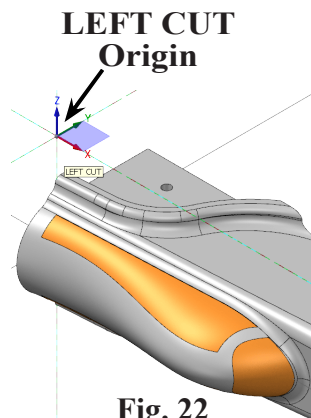
**Fig. 20**

**Direction arrow**

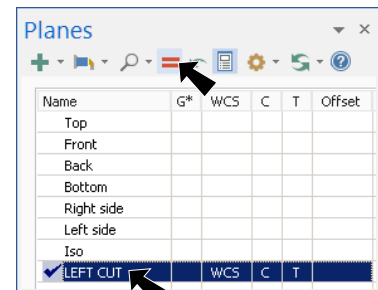
## H. Set All Planes to LEFT CUT.

Step 1. In the Planes Manager (Alt-L):  
Select **LEFT CUT** and click  
**Set All** , **Fig. 21**.

Step 2. Save  (Ctrl-S).



**Fig. 22**



**Fig. 21**