

DET Supplemental Document

M9-1 Muffler

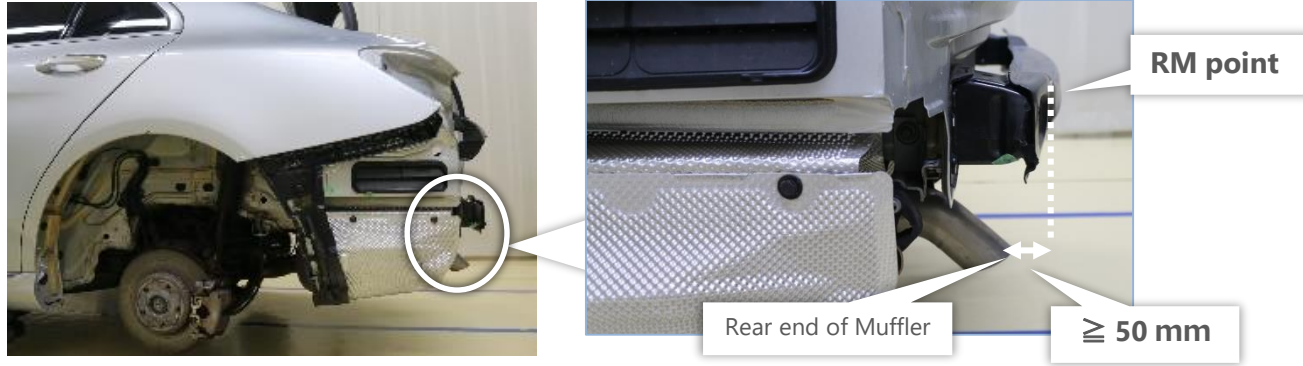
Condition

- Vehicle : Vehicles with Muffler
- Part and Structure : Rear end position of Muffler

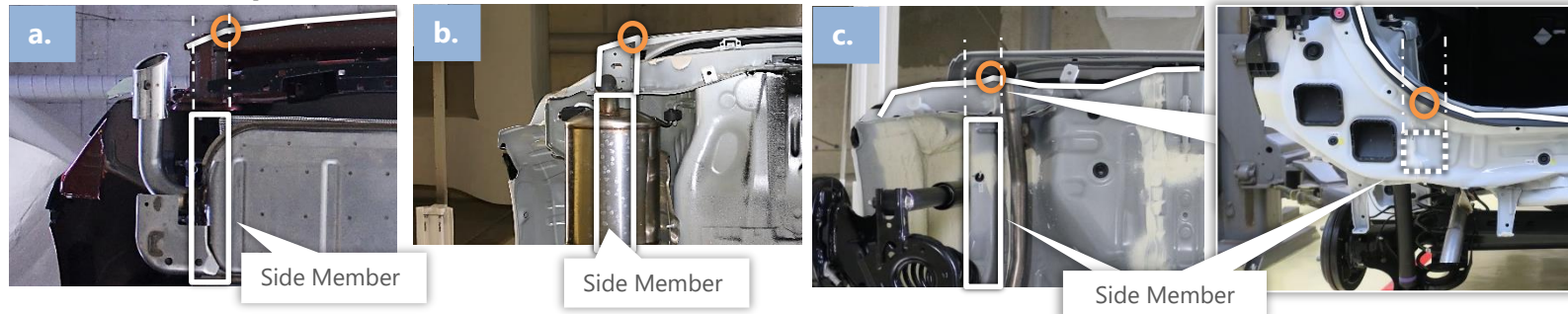


Criteria

The rear end of the Muffler should be located at least 50 mm inside the rear end of the structural component on the same vertical plane as the Rear Side Member (hereinafter referred to as the RM point*).



* RM point : Rearmost point among Rear Bumper Reinforcement (a), Crush Box (b) and Back Panel (c) on the same vertical plane as the Side Member

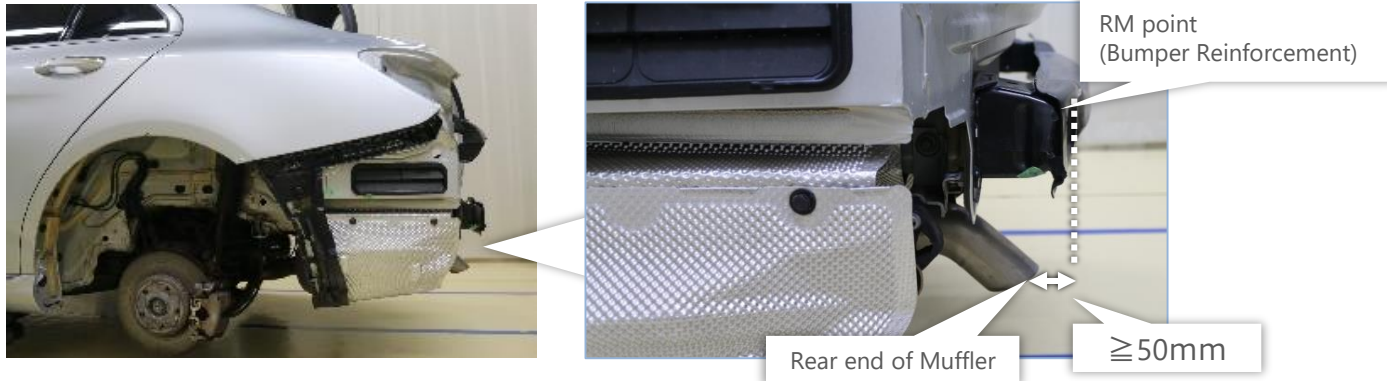


Reason

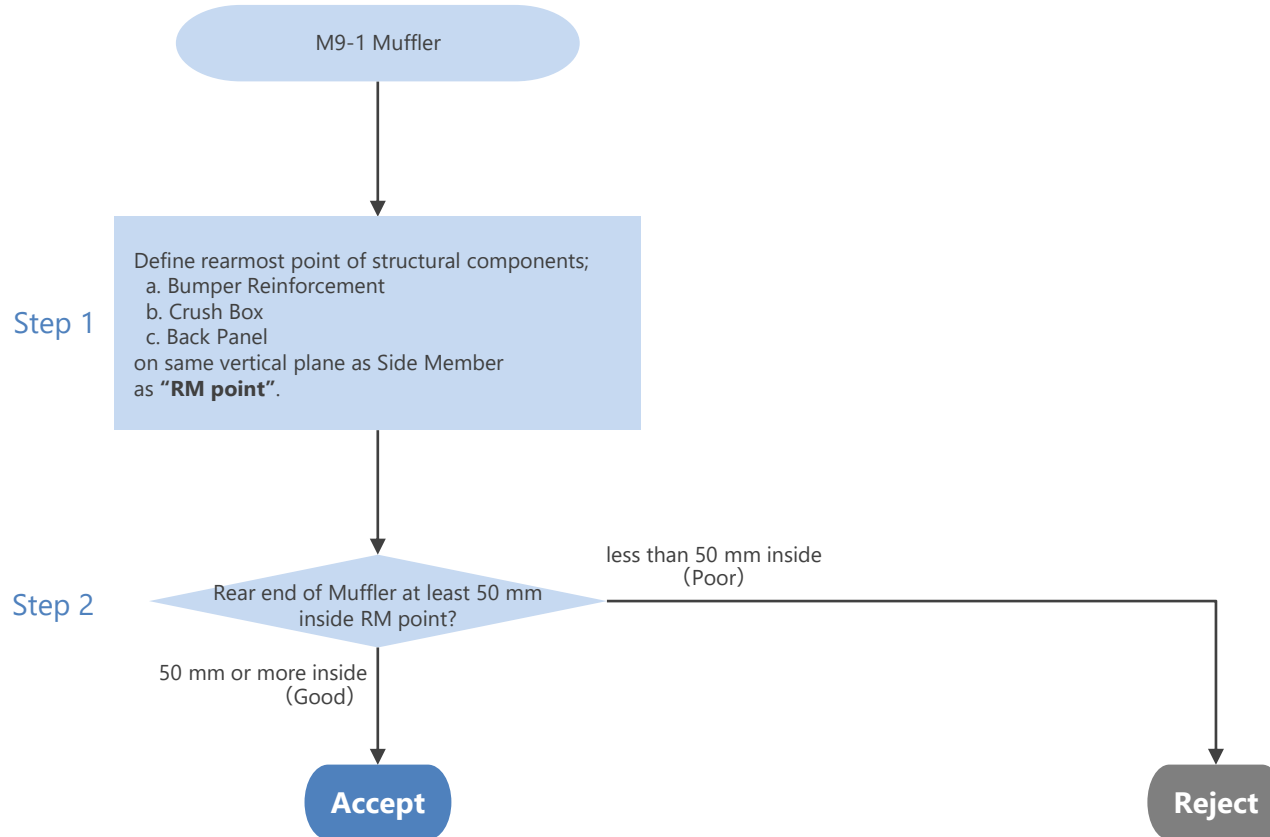
When the rear end of the Muffler is located at least 50 mm inside the RM point, damage to the rear end of the Muffler by contacting the barrier on the Structure Test, is less likely to occur.

Example of a good structure of the rear end of Muffler

The rear end of the Muffler was located more than 50 mm inside the RM point (Bumper Reinforcement in this example). The rear end of the Muffler did not contact the barrier and was not damaged on the Structure Test.

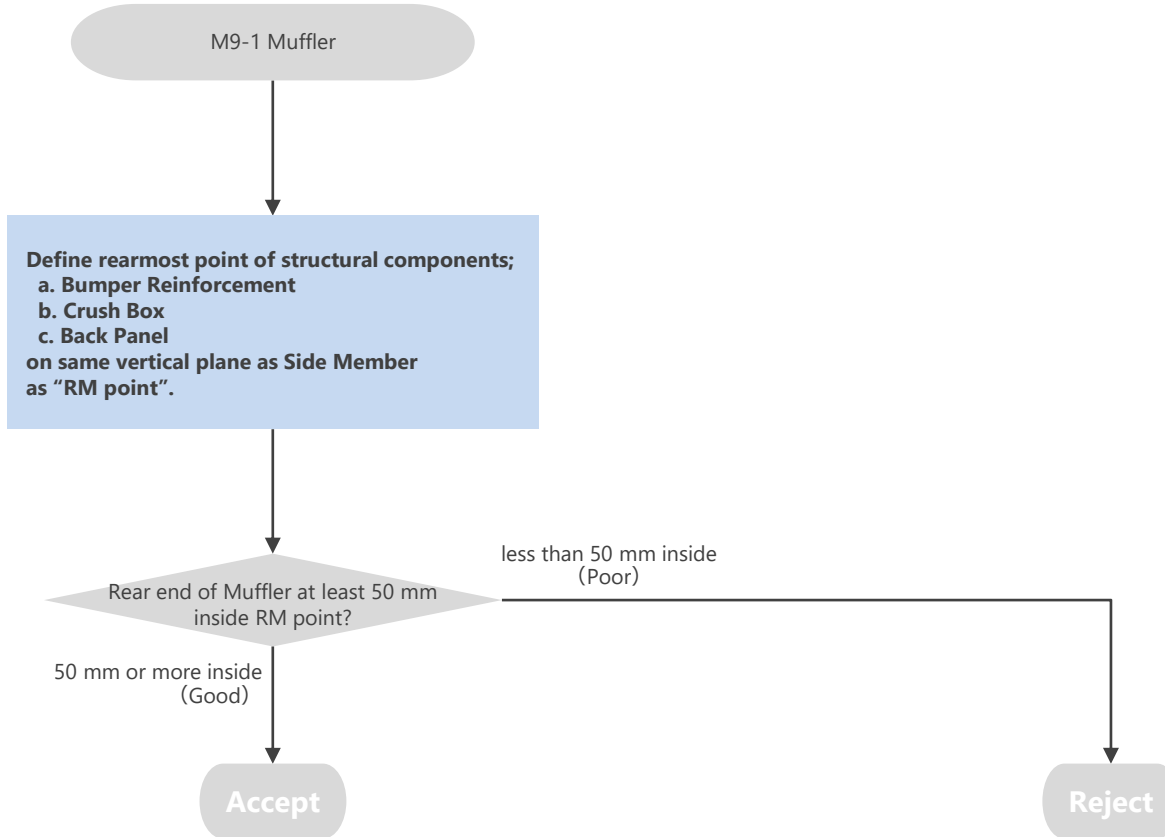


Check Flow



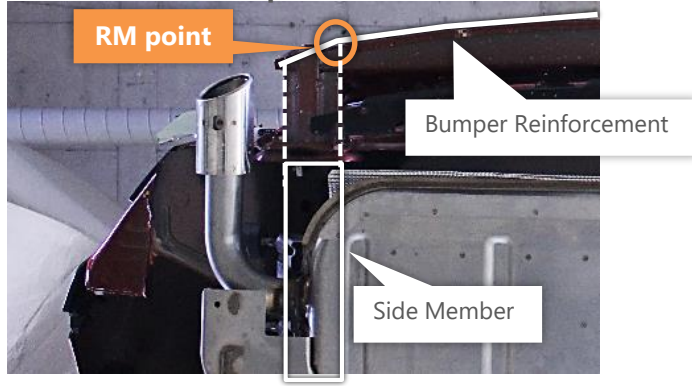
Check Flow – Step 1

Step 1



Check – Step 1

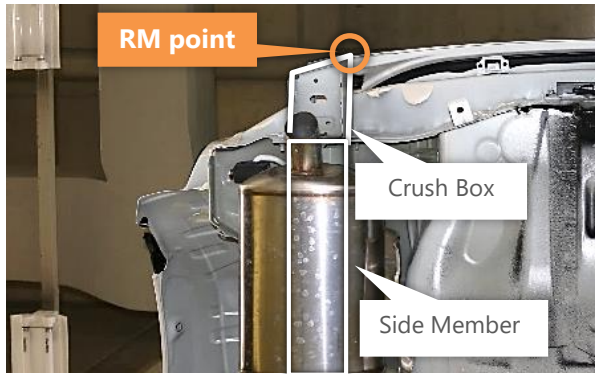
a. Rear end of Bumper Reinforcement



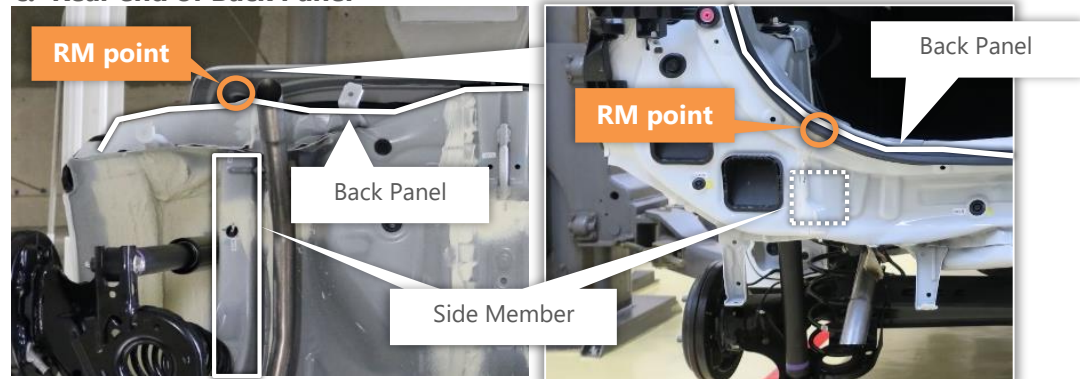
Define RM point.

- ☞ The rearmost point of structural components (shown as Photo a, b, c) on the same vertical plane as the Side Member is defined as RM point.

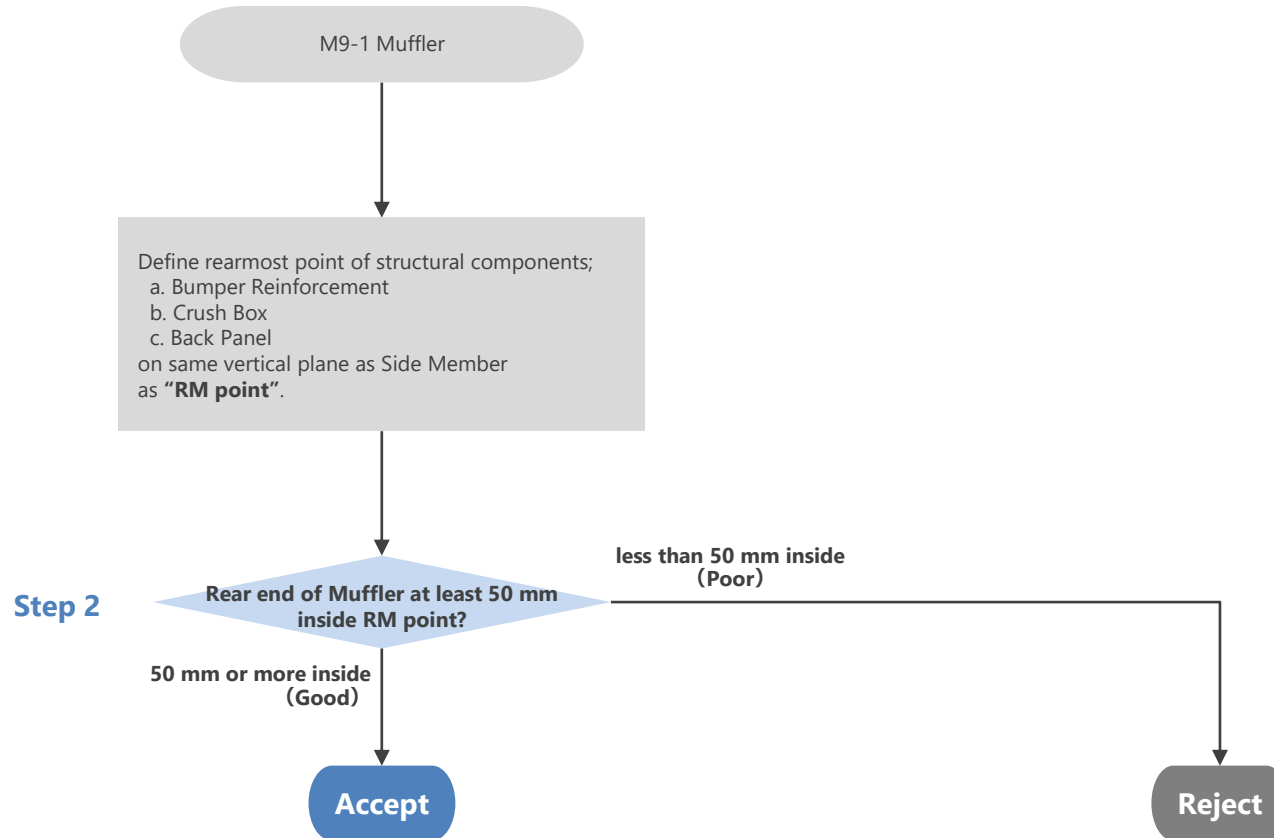
b. Rear end of Crush Box



c. Rear end of Back Panel



Check Flow – Step 2



Check – Step 2

Check if the rear end of the Muffler is at least 50 mm inside the RM point.

【Determination】

Good

- ☞ When the rear end of the Muffler is 50 mm or more inside the RM point, it is determined as Good and **Accept**



Poor

- ☞ When the rear end of the Muffler is less than 50 mm inside the RM point, it is determined as Poor and **Reject**

