

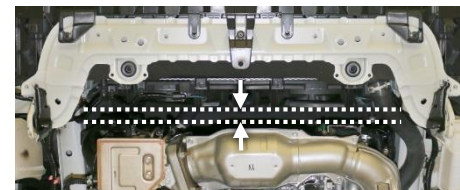
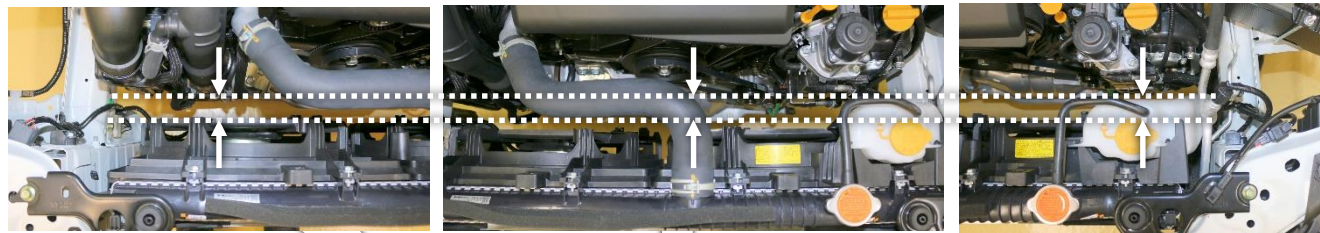
DET Supplemental Document

M3-1 Fan Shroud

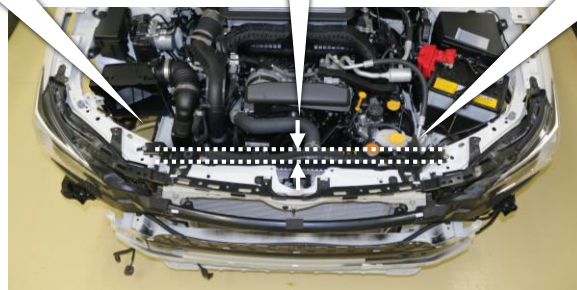
Condition

- Vehicle : All vehicles
- Part and Structure : Fan Shroud and auxiliary parts or pipes* behind it (forward-backward clearance)

* Flexible parts, like rubber hoses or wirings, are not considered



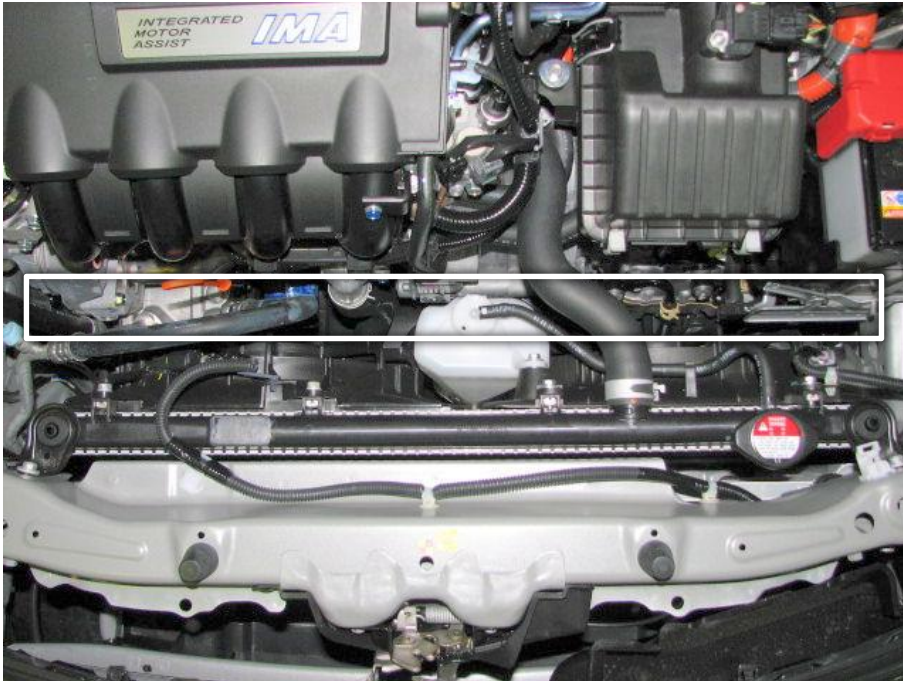
bottom view



above view

Criteria

The forward-backward clearances between the Fan Shroud and auxiliary parts behind it should be 80 mm or larger.



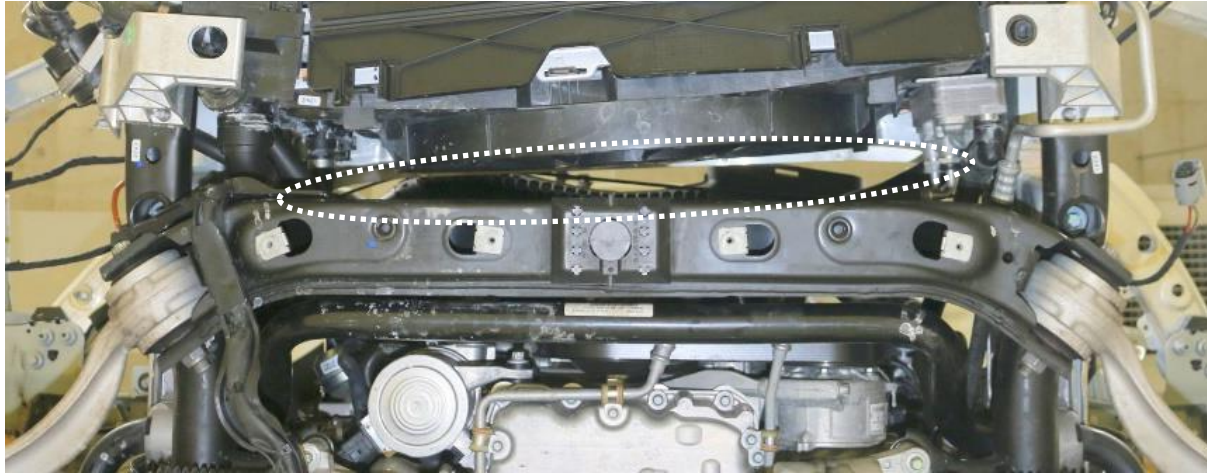
The forward-backward clearance between the back of the Fan Shroud and auxiliary parts* behind it.

* Cooler pipe, intercooler pipe, intake manifold, exhaust manifold, alternator, compressor, turbo charger, throttle valve, etc.

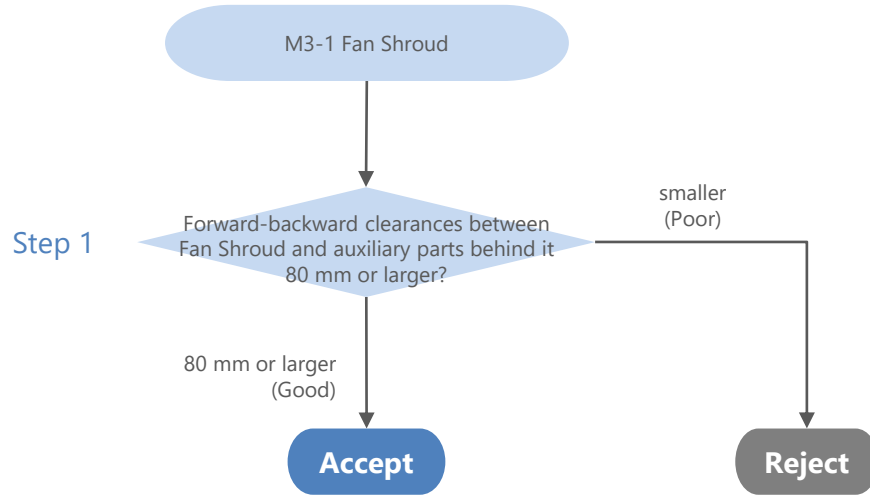
Reason

When the forward-backward clearances between the Fan Shroud and auxiliary parts behind it are 80 mm or larger, damage to the Fan Shroud and auxiliary parts is less likely to occur even when the Fan Shroud move back on the Structure Test or Bumper Test.

Good example of clearance larger than 80mm behind the Fan Shroud
No contact between the Fan Shroud and auxiliary parts in a collision



Check Flow



Check – Step 1

Check if the forward-backward clearances between the Fan Shroud and auxiliary parts behind are 80 mm or larger.



- ☞ Check the minimum forward-backward clearances between the Fan Shroud and auxiliary parts.
- ☞ Flexible parts like rubber hoses or wirings are not considered.
- ☞ Check the entire back of the Shroud for the Bumper Test, and the side half of the Shroud where the vehicle will impact for the Structure Test.

【Determination】

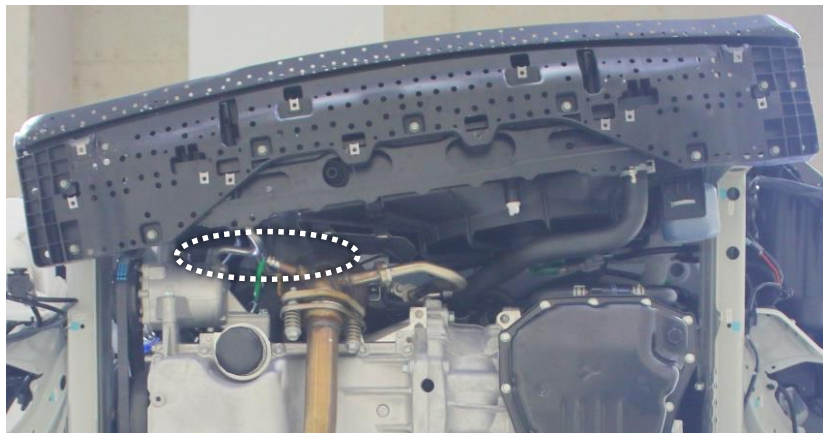
Good

- ☞ The minimum clearance is 80 mm or larger, it is determined as Good and **Accept**

Poor

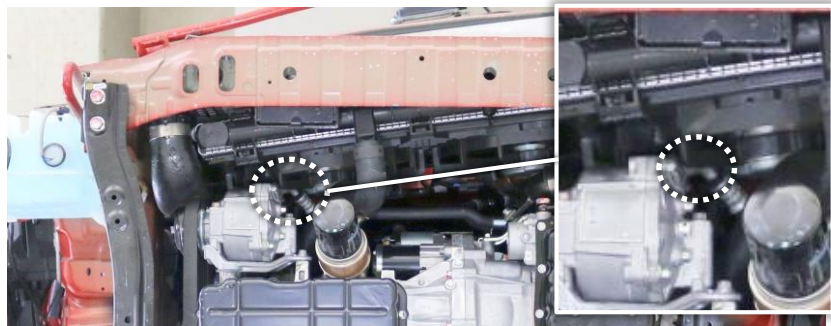
- ☞ The minimum clearance is smaller than 80 mm, it is determined as Poor and **Reject**

Example of Accept / Reject



Accept

The minimum clearance between the Shroud and auxiliary parts behind it was larger than 80 mm, there was no contact and damage between them on Structure Test.



Reject

The minimum clearance was smaller than 80 mm, the Shroud contacted a Cooler Pipe on the Structure Test and both of them are damaged.