

Crash test plans about HDV (Bus) in Korea

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1. Research Overview

- Korea plan to conduct the crash tests about CNG bus that fuel vessels are located in bottom of vehicle.



<Test Vehicle type(CNG)>

- Objective

- To study severity of hydrogen fuel system located in underfloor of Bus according to the side impact.

- Test conditions : To consider 3 conditions as below.

- ① Representative bus accidents in Korea

- ② UN R 134 amendment(Impact Test)

- ③ Side impact test of FMVSS 303(Fuel System integrity of compressed natural gas vehicles)

- Test Schedule : 9. 2021 ~ 10. 2021

1. Research Overview

- Representative HDV(bus) accidents in Korea

- Accident Statistics : 1,408 accident Data(2018~2019yr) from the biggest transportation Company in Korea

- ① Side impact collisions

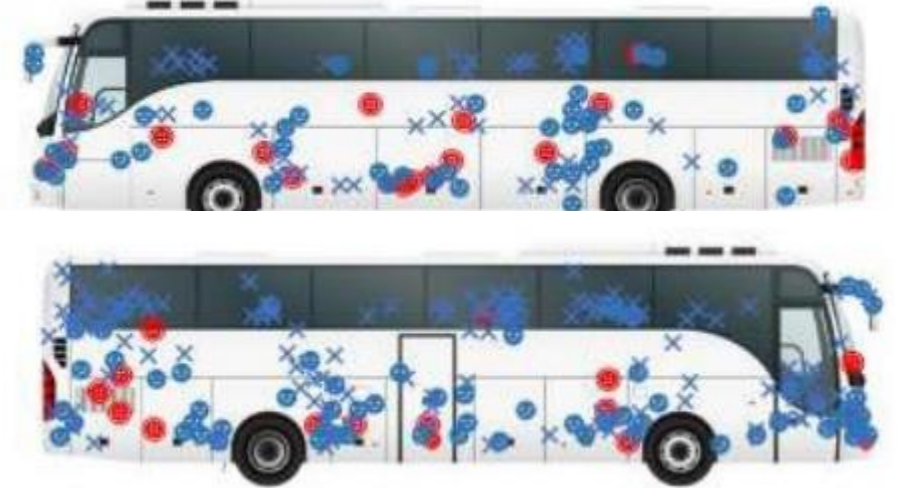


<Side collisions of Bus>

- ② collision velocity

- HDV(Bus)-to-LDV : 40~60 km/h, HDV(Bus)-to-HDV(Bus) : 15~40km/h

※ Red: severe, Blue : Minor

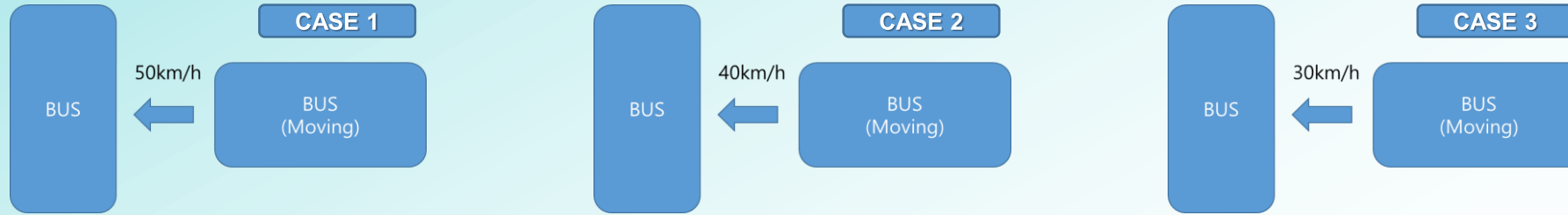


<Impact positions>

2. Test Matrix

✓ Bus-to-Bus crash test cases

✓ 3 cases of crash test according to various impact velocity

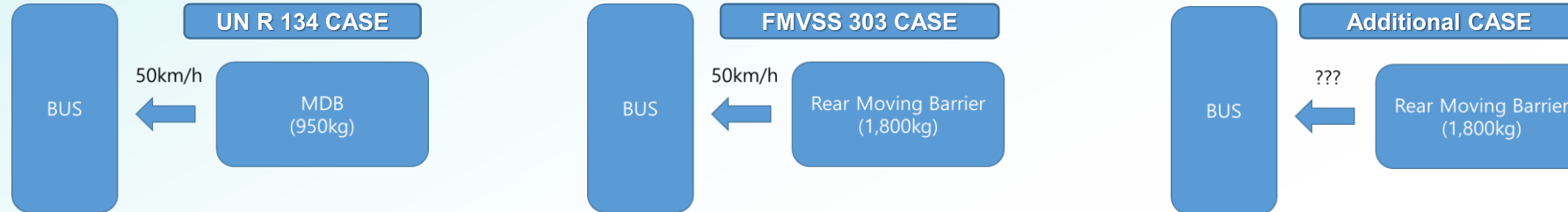


✓ Bus-to-Moving Barrier crash test cases

✓ UN R 134 case : Using MDB(950kg), 50km/h

✓ FMVSS 303 case : Moving barrier(1,800kg), 50km/h instead to 32km/h(20mph)

✓ Additional case : To apply the Impact velocity to derive from impact energy analysis to use results of Bus-to-Bus test,



● Test Schedule : 9. 2021 ~ 10. 2021

**Thank you for your
attention !**