PLENARY SESSION 1

INTERNATIONAL CONFERENCE & 19TH GENERAL ASSEMBLY
FROM PERIODIC INSPECTION TO WHOLE LIFE COMPLIANCE

SEOUL • 2 - 4 April 2019
Welcome speech

Gerhard Müller
CITA President
Welcome speech

Byung Yoon Kwon
KOTSA President
Welcome speech

Jeong Ryeol Kim
Vice Minister of Land, Infrastructure, and Transport - Korea
Keynote speech

Ickhee Ryu
Senior Director, KOTSA
Vehicle Inspection Policies of Korea

Ick Hee Ryu
History of Vehicle Inspection under the Korea Transportation Safety Authority

1981.7.1 Transportation Safety Promotion Authority was established (vehicle inspection went public)
1997.4.1 Private vehicle inspection allowed
2002.5.20 Conducted precise examination of commercial vehicle exhaust emissions (Seoul)
2003.1.1 Commenced approval for the structural change of vehicles
2003.3.1 Expansion of precise examination of commercial vehicle exhaust emissions (Incheon, Gyeonggi)
2006.1.1 Examination of specific diesel vehicles
2007.4.1 Precise examination of exhaust of large vehicles
2008.1.1 Expansion of exhaust emission examination for operating vehicles (cities with ≥500,000 residents)
2009.3.30 Introduced the General Vehicle Inspection System
2010.1.6 Changed the exhaust emission examination process for diesel vehicles (KD-147)
2011.11.25 Commenced the re-inspection of pressure-resistant containers in CNG
2014.4.7 Implemented regular inspection of exhaust emissions of two-wheeled vehicles (260cc)
2016.8.12 Repair and test policy of scrap vehicles
2018.1.1 Renamed Korea Transportation Safety Authority
2018.12.28 Construction of advanced vehicle inspection research center (KAVIC)
Vehicle Inspection Types and Inspection Organizations

**Inspection Types**
- Regular Inspection
- Comprehensive Inspection
- Tuning Inspection
- Temporary Inspection
- Pressure-resistant Container Re-inspection
- Other

**Inspection Organizations**
- KOTSA (59 offices) mobile office (2)
- Temporary inspection (40 sites)
- Designated agencies for regular inspection (1,753개)
- Designated agencies for comprehensive inspection (908개)
Vehicle Inspection

Comprehensive Inspection Sites

- Seoul
- Incheon
- Gyeonggi
- Cheonan
- Cheongju
- Daejeon
- Pohang
- Daegu
- Ulsan
- Busan
- Gimhae
- Changwon

Comprehensive Inspection Modes

- Gasoline and natural gas vehicles (Idle + ASM2525)
  - Pre-heating
  - Idle
  - ASM2525
  - Average (sec)
  - Average (10 sec)

- Diesel vehicles (KD-147)
  - Pre-heating
  - Test (147 sec)
Technological Development Directions of Vehicle Inspection

I. Software Inspection Testing
II. Autonomous Driving Testing (High-tech Devices)
III. Exhaust Inspection
VI. EV Testing

NOx PTI : Start 2021
Strengthening of SW Inspections

ECSS DTC Code + OBD-2 (EOBD) + EV High Voltage + FCEV Valve + Max. Speed Limit + Actuator
Autonomous Vehicle Inspection Development

State-of-the-art Assistance Devices for Safe Driving

Autonomous Vehicles
Development Concept of Autonomous Vehicle Inspections

- ACC
- LDWS
- LKAS
- AEB
- FCW

GPS

V2X
Development Concept of Autonomous Vehicle Inspections
Exhaust Inspection Development

- NOx
- PN
- OBD
- NO2
- SCR
- DOC
- RDE
- GPF
- PEEM
- PM10
- PM2.5
- KADIS
- KAPRO
- Misfire
- EOBD
- LNT
- DPF
- Opacity
- Kiosks OBD-2
- P0400
- P0132
- Catalyst
- EGR
- BAR-OIS
- MIL
- e-PTI
- CAN
- CAN FD
- Oxygen Sensor
- 1,300ppm
- 3,000ppm
- Remote OBD-2
- Evaporative System
- OBD-2
- KAMS
- KANET
- DTC
- 2,000ppm
Inspection Technology for EVs

Step 1
Visual Inspection
Base

Step 1-2
High Powered Insulation
Performance Test

Step 2
DTC Code
Fitment Test

Step 2
Max-Min Voltage
Fitment Test

Step 3
to be determined
Battery Performance
Performance Test

Step 3
to be determined
Charging System
Fitment Test

EV PTI: Start 2019
Establishing the KAVIC (Advanced Vehicle Inspection Research Center)
Paradigm Shift of the TS Vehicle Inspection
Strengthening International Cooperation
Everyone is a pedestrian outside the car

Thank you
Keynote speech

Gerhard Müller
CITA President

CITA is changing in a world of evolution
Projects and reports:

- SET II – modernizing periodic emission tests
- Impact of PTI in Turkey
- Impact of PTI in Costa Rica
- Inspection of eCall (DG Move)
- Inspection of motorcycles and light trailers (DG Move)
- Assessment of the inspection in Togo (WG – GRSF)
- SaferAfrica (DG Devco)
Cita has changed

Experts’ forum + Acknowledged stakeholder
The past:
CITA, Who?
Where have you been hiding?

Today:
GRSF
Global Road Safety Facility
WORLD BANK
WP.29
UNRSC
World Health Organization
Why are we recognized by international stakeholders?
Roadworthiness is useful:

- Turkey: PTI saves 300 fatalities and US$ 340 M p. a.
- Spain: PTI of motor scooters counts for the 20% of the road safety improvement
- Costa Rica: PTI reduces crashes by 40%
- Spain: more that 400 premature deaths because of emissions tests avoided in 2016
Vehicle compliance plays a key role

A comprehensive road safety policy must take into account vehicle compliance
Impartiality
The future of Vehicle Inspection:

- Additional new testing procedures
- Continuous vehicle inspection
- Non-discriminatory access to original vehicle data
CITA: Impartiality and expertise

For road safety and environment protection also in the future
THANK YOU

Enjoy the Conference and the hospitality of KOTSA
Next session: Plenary session 2
Grand Ball Room | 10:30 am

Enjoy the coffee break!