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Advancing
Free Trade for Asia-Pacific
Prosperity

Overview of the Motor Vehicle Safety Type Approval in Chinese Taipei

24 04 2018 – Seoul

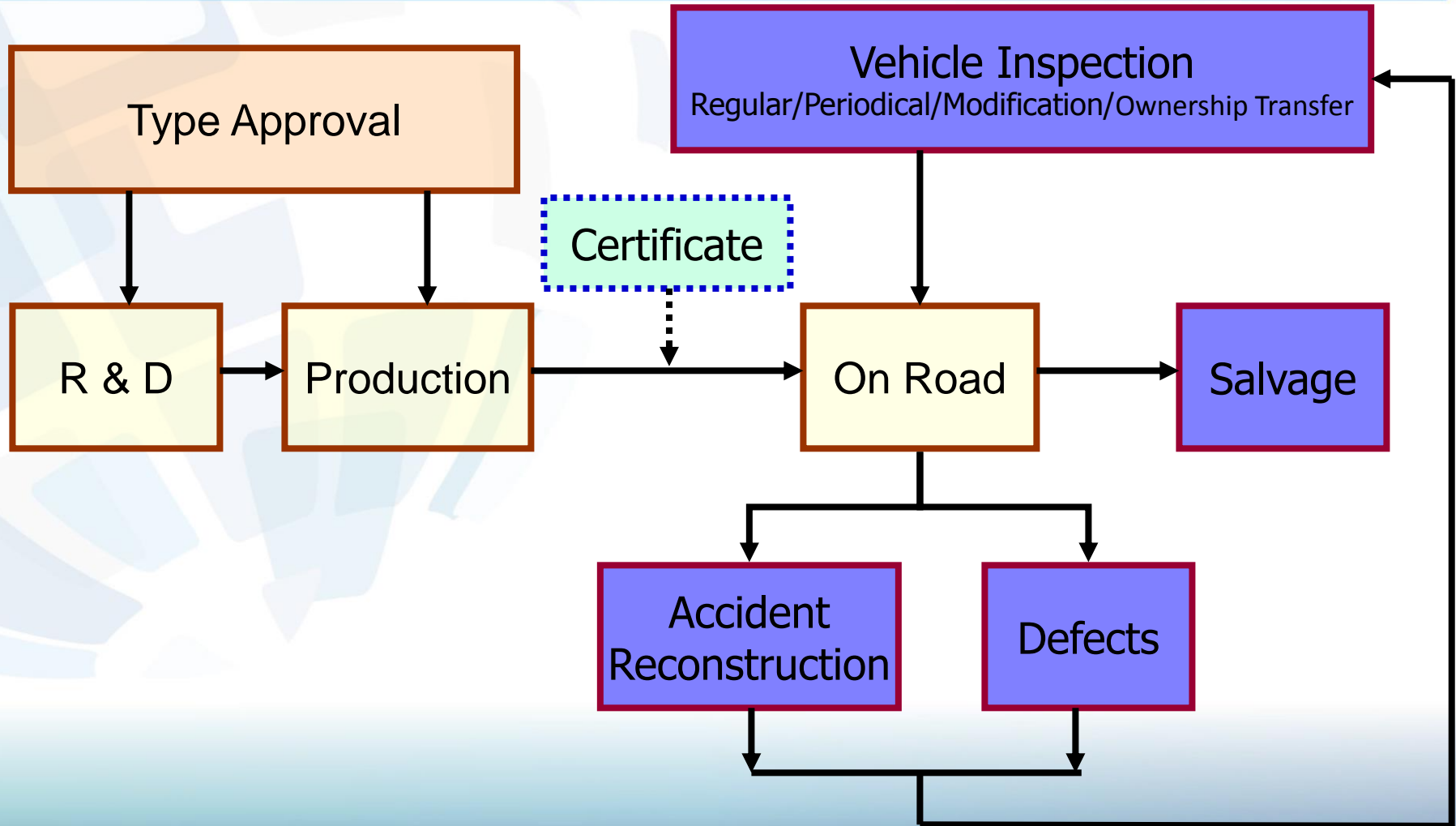
Presented by

Simon HSU, Vehicle Safety Certification Center, Chinese Taipei

Cycle for Securing Motor Vehicle Safety



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Regulation Structure



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Basic Act

The Highway Law (Paragraph 5, Article 63)

Subsidiary Regulation

Vehicle Safety Type Approval Management Regulations

- ❖ 41 articles and 3 attachments
- ❖ Effective since 29 January 2007

Subsidiary Regulation

Vehicle Safety Testing Directions

- ❖ 84 required testing items
- ❖ Effective since 31 January 2007

Harmonized with 66
UN Regulations

Structure of

“Vehicle Safety Type Approval Management Regulations“



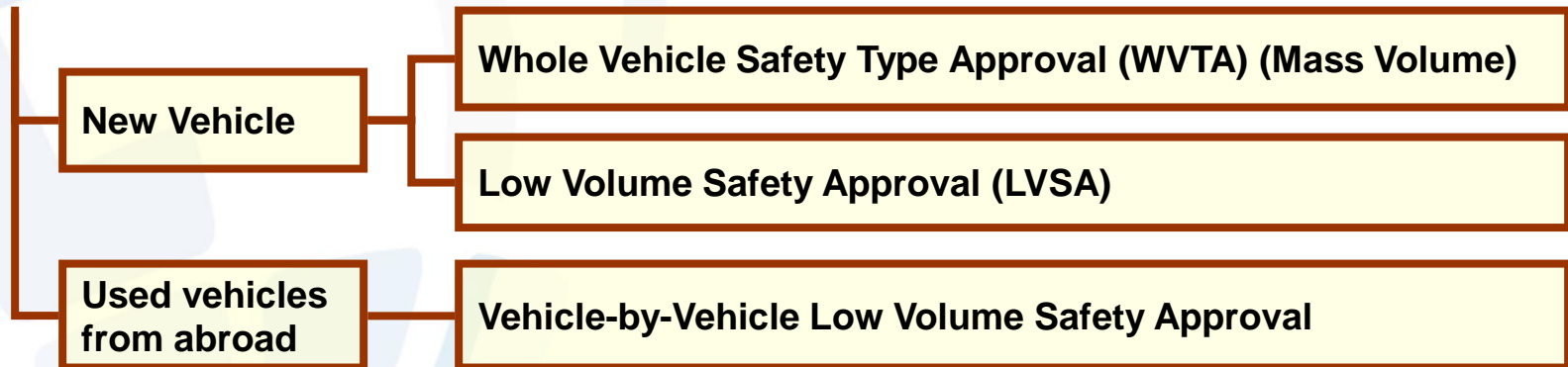
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- Chapter 1 General Regulations
 - Definitions
- Chapter 2 Motor vehicle safety type approval
 - Qualifications, documents, procedures and so on
- Chapter 3 Accreditation of Technical Services
 - Qualifications, documents, procedures and so on
- Chapter 4 Verification, Supervision and of administration
- Chapter 5 Supplementary provisions
- Attachment 1 to 3

❖ According to paragraph 3 : The applicant shall apply for the tests conducted by technical services or certification institution to acquire test reports according to the vehicle safety testing directions. Then proceed with the application toward certification institution and acquire the Vehicle Safety Type Approval Certificate and then apply for registration, inspection and get the new license plate from the local Motor Vehicle Office.

Elements (1/2)

- Vehicle safety type approval: the examinations conducted for the safety and specifications of motor vehicles before applying for the new license.

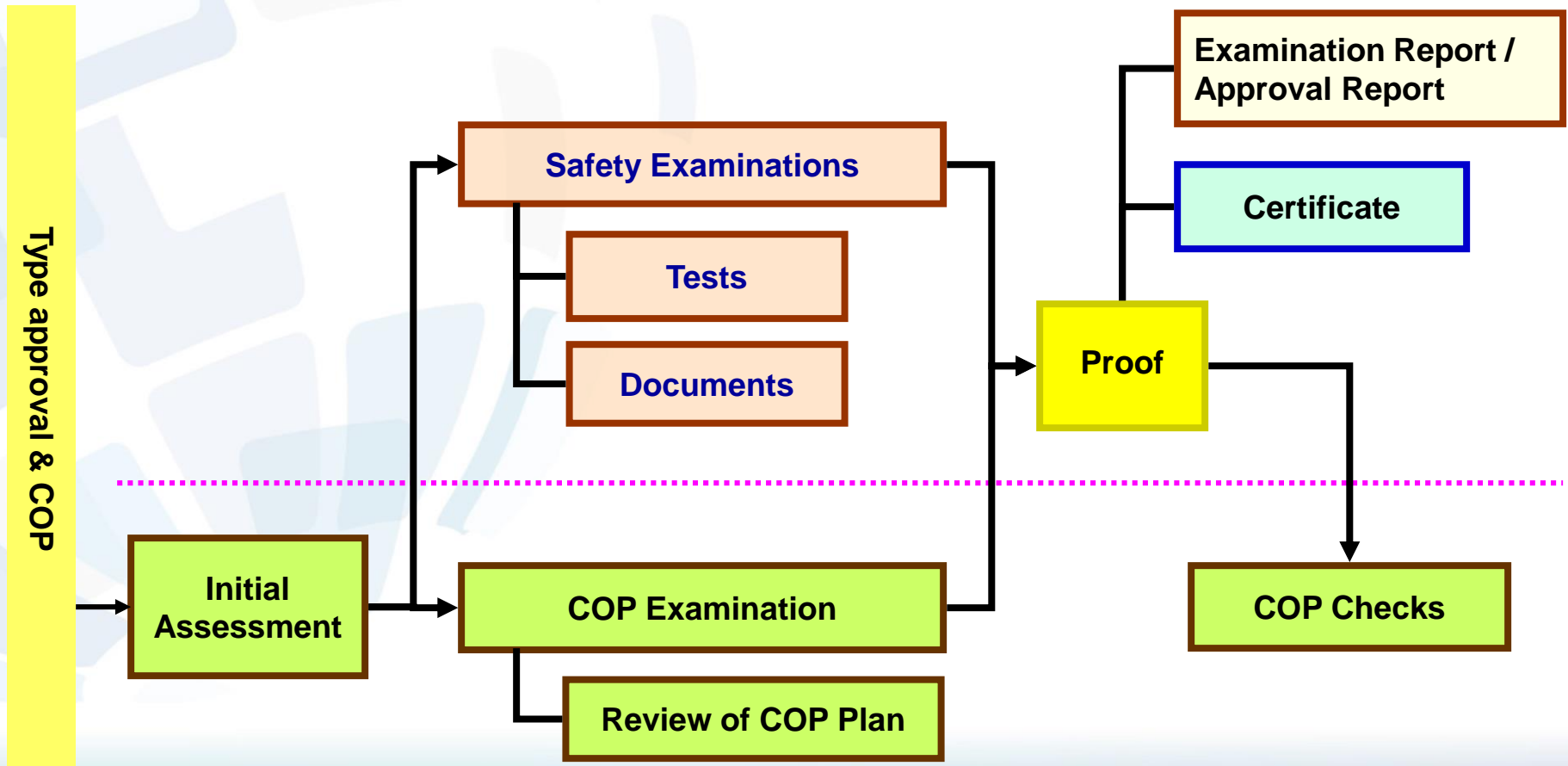


- Examination of **conformity of production (COP)**: means review of COP plan and check of COP to ensure the mass-produced vehicle safety quality compliant with the approved vehicle under the vehicle safety type approval. The check of conformity of production includes the checks of annual reports, on-site checks and sampling inspection and testing.
- **Technical Service**: Domestic or foreign institution, which obtains the approval from MOTC for safety inspection and testing of vehicles or its devices.
- **Certification Institution**: The domestic professional vehicle institution authorized by MOTC to process relevant affairs of vehicle safety type approval.

Elements (2/2)



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Infrastructure



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Approval Authority



Ministry of Transportation and Communications (MOTC)

Certification Institution



Authorized by MOTC

Technical Services

53 Technical Services (149 Witnessed Lab.)

Accredited by MOTC

Domestic institutions:

1. Automotive Research & Testing Center
2. Taiwan Rubber Research & Testing Center
3. Hi Safe Technologies Co., Ltd.
4. KINGDOM Vehicle Inspection co.

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Foreign institutions:

1. TÜV SÜD, Rhineland, NORD, DEKRA, KIT (Germany)
2. VCA, BSI (UK)
3. RDW, TNO (Netherlands)
4. UTAC (France)
5. AVI (Belgium)
6. IDIADA, INTA (Spain)
7. LUXCONTROL (Luxembourg)
8. FAKT, CSI (Italy)
9. SP (Sweden)

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Relation between Proofs



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Certification Institution

Approval Authority



Comparison of Proofs between Europe and Taiwan



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System / Component

Whole Vehicle

European System



ECE

Certificate



EEC

WVTA Certificate

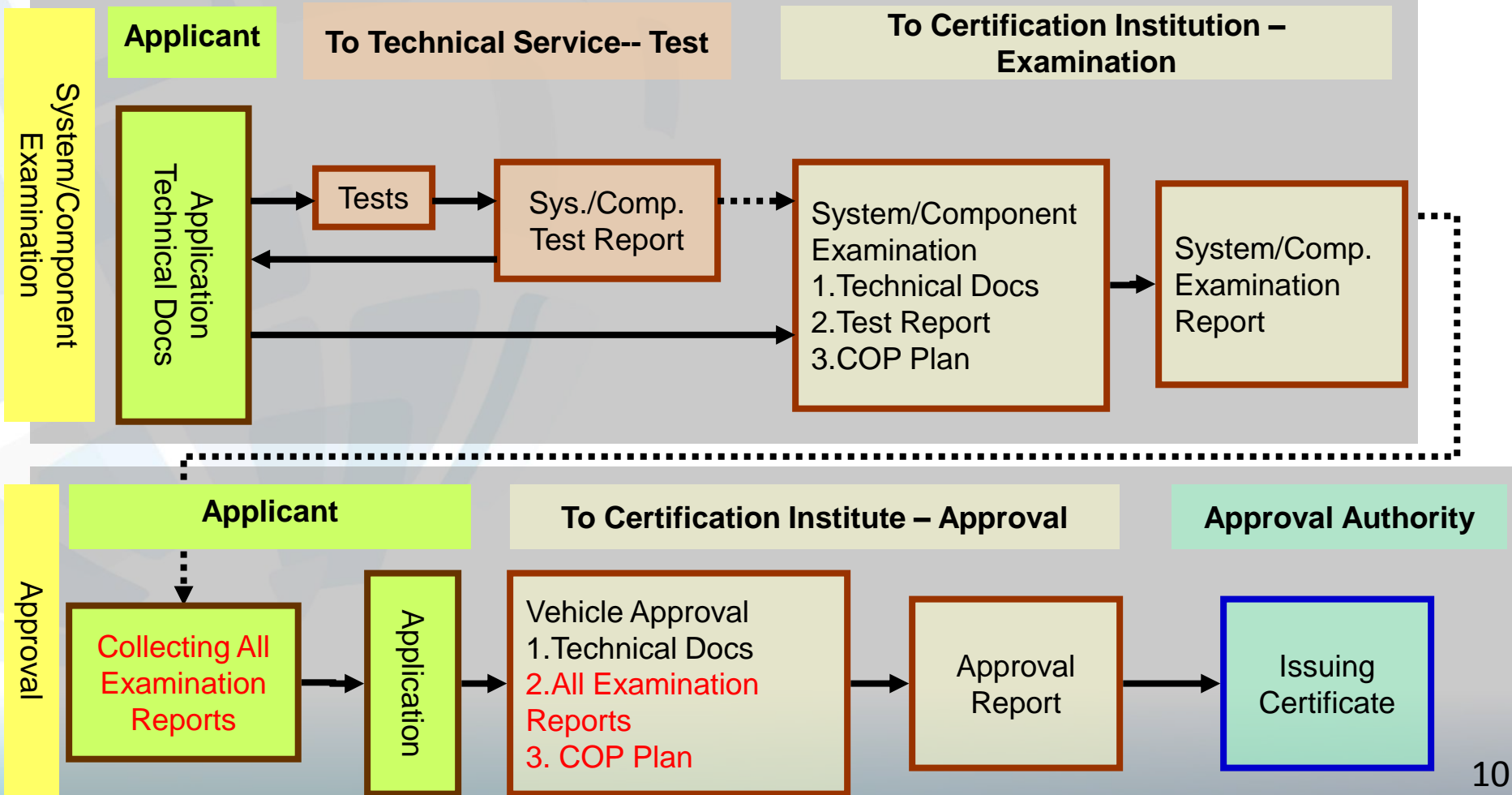
Taiwanese System

Examination Report

WVTA Certificate

- Taiwan's system is similar to EEC WVTA, including document examinations and system(vehicle)/component tests. Among the tests, the applicant can choose two options: Institution test, witness test.

Proofs Issuing Procedures (WVTA)



Ways to attain Testing Report

Applicant



To the accredited Technical Services

To Certification Institution

Institution Test

Witness Test

Vehicle Safety Testing Items History

Year 1998~2004 2006 Next Page

Add* 19(5) **+21(20)**

Total 19(5) **40(25)**



Regulation	
Motor vehicle specification	Thermal-insulation of exhaust system for motorcycle
Installation of turning & reversing AWD	Stability & durable of motorcycle stand
Flammability of the interior material	Passenger hand-hold of motorcycle
LPD& RUPD	Digital tachograph
Inspection of LPG fuel system	Strength of luggage rack for small vehicle
Inspection of CNG fuel system	Strength of coupling device for small vehicle
Installation of payload meter	Installation of lights
Payload meter	Sound level of AWD
Vehicle tilt stability	Retro-reflective marking
Static braking	

Regulation	
Safety belt	Front position lamp
Safety glass	Rear position lamp
Installation of devices for indirect vision	End-outline marker lamp
Devices for indirect vision	Stop lamp
Tyre	S3 stop lamp
AWD	Parking lamp
Speedometer	Side-marker lamp
Gas-discharge headlamp	Symbol of driver operated controls
Direction indicator	Filament lamp
Front fog lamp	Reflex reflector
Reversing lamp	

- Counted from the earliest implemented date, given some regulations have different implementing time for each category of vehicle
- () Numbers of regulation are harmonized from UN Vehicle Regulation

Vehicle Safety Testing Items History

Year	2007~2008	2010~2011
Add*	+16(20)	+7(4)
Total	56(45)	63(49)

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Regulation
Dynamic braking
Electronic control device of small-light moped
Fatigue strength of frame for small-light moped
Occupants protection of lateral collision
Occupants protection of frontal collision
Impact protection of driver for steering system
Steering equipment
Safety belt anchorage
Seats strength
Head restraint
Door latches & Hinges
Headlamps(w/o gas-discharge headlamps)
Rear fog lamps
Anti-lock braking system(ABS)
Strength of super structure for large passenger vehicle
Prevention of fire risk for large passenger vehicle

Regulation
Devices for indirect vision with reversing-assistance lamp
Specification of low floor vehicle
Protection of high temperature compression & electrical shock for electric motorcycle
Electromagnetic compatibility(EMC)
Adaptive front lighting system(AFS)
Installation of mechanical coupling device
Mechanical coupling device

Vehicle Safety Testing Items History



Regulation
Flammability of interior materials for motor vehicle
Battery electric vehicles safety
Fuel tank
Wheelchair accessible vehicle
TPMS
Manoeuvring lamp
Driving vision assistance system
Daytime running light
LED light sources

Regulation
Location and identification of hand control, tell-tales and indicators
Speed limitation devices(SLD)
External projections
Rear marking plates for heavy and long vehicles
Vehicle of CHSS
Compressed hydrogen storage system (CHSS)
Components of CHSS
BAS
ESC

Regulation
LDWS
AEBS
External projections (commercial vehicle)
Quiet road transport vehicles

- Counted from the earliest implemented date, since some regulation have different implemented time for each category of vehicle
- () Numbers of regulation are harmonized from UN Vehicle Regulation

Safety Testing Items for Category L



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1. Motor vehicle specification
2. Installation of lights(UNR53/74)
3. Installation of AWD(UNR28)
4. Thermal-insulation of exhaust system
5. Stability & durable of stand
6. Passenger hand-hold
7. AWD(UNR28)
8. Speedometer(UNR39)
9. Installation of devices for indirect vision(UNR46/81)
- 10.Symbol of driver operated controls (UNR60)
- 11.Devices for indirect vision(UNR46)
- 12.Tyre(UNR75)
- 13.Filament lamps(UNR37/99)
- 14.Gas-discharge headlamp(UNR98) *
- 15.Direction indicator(UNR06/50)
- 16.Front fog lamp(UNR19) *
- 17.Front position lamp(UNR07/50)(L1 *)
18. Rear position lamps(UNR07/50)
19. Stop lamp(UNR07/50)
20. Reflex reflector(UNR03)
21. Dynamic braking(UNR78)
22. ABS(UNR78) *
23. Headlamp(w/o gas-discharge headlamp)(UNR112/113)
24. Rear fog lamp(UNR38) *
25. EMC(UNR10)
26. Electronic control device
27. Fatigue strength of frame
28. Protection of high temperature compression &electrical shock for electric motorcycle *
29. Daytime running light(UNR87)
30. LED light sources(UNR128) *



*Optional

Safety Testing Items for Category M1 (1/2)



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1. Motor vehicle specification
2. Installation of lights(UNR48/70/104)
3. Static braking
4. Inspection of LPG fuel system*
5. Inspection of CNG fuel system*
6. Installation of AWD(UNR28)
7. Strength of coupling device*
8. Strength of luggage rack*
9. Flammability of interior material(UNR118)
10. Retro-reflective marking(UNR104)*
11. AWD(UNR28)
12. Speedometer(UNR39)
13. Installation of devices for indirect vision(UNR46/81)
14. Safety glass(UNR43)
15. Safety belt(UNR16)
16. Devices for indirect vision(UNR46)
15. Tyre(UNR30)
16. Filament lamp(UNR37/99)
17. Gas-discharge headlamps(UNR98)*
18. Direction indicator(UNR06)
19. Front fog lamp(UNR19)*
20. Reversing lamp(UNR23)
21. Front position lamp(UNR07)
22. Rear position lamp(UNR07)
23. Parking lamp(UNR77)*
24. Stop lamp(UNR07)
27. S3 stop lamp(UNR07)
28. End-outline marker lamp(UNR07)*
29. Side-marker lamp(UNR91)*
30. Reflex reflector(UNR03)

* Optional



Safety Testing Items for Category M1 (2/2)



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31. Dynamic braking(UNR13h)
32. ABS(UNR13h)*
33. Impact protection of driver for steering system(UNR12)
34. Steering equipment(UNR79)
35. Safety belt anchorage(UNR14)
36. Seats strength(UNR17/80)
37. Head restraint(UNR17/25)
38. Door latches &Hinges(UNR11)
39. Headlamp(w/o gas-discharge headlamp)(UNR031/112)
40. Rear fog lamp(UNR38)
41. EMC(UNR10)
42. AFS(UNR123) *
43. Devices for indirect vision with reversing-assistance lamp*
44. Battery electric vehicle safety (UNR100) *
45. Fuel tank(UNR34)
46. Wheelchair accessible vehicle*
47. TPMS(UNR141)
48. Manoeuvring lamp(UNR23)*
49. Daytime running light(UNR87)
50. LED light source(UNR128)*
51. Location and identification of hand control, tell-tales and indicators(UNR121)
52. SLD(UNR89)*
53. External projections(UNR26)
54. Quiet road transport vehicle(UNR138)*
55. Vehicle of CHSS(UNR134)*
56. CHSS(UNR134)*
57. Components of CHSS(UNR134)*
58. BAS(UNR139)
59. ESC(UNR140)

* Optional



Safety Testing Items for Category N1 (1/2)



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1. Motor vehicle specification
2. Installation of lights(UNR48/70/104)
3. Static braking
4. Inspection of LPG fuel system*
5. Inspection of CNG fuel system*
6. Installation of AWD(UNR28)
7. Strength of coupling device*
8. Strength of luggage rack*
9. Retro-reflective marking(UNR104)*
10. AWD(UNR28)
11. Speedometer(UNR39)
12. Installation of devices for indirect vision(UNR46/81)
13. Safety glass(UNR43)
14. Safety belt(UNR16)
15. Devices for indirect vision(UNR46)
16. Tyre(UNR30/54)
17. Filament lamp(UNR37/99)
18. Gas-discharge headlamp(UNR98)*
19. Direction indicator(UNR06)
20. Front fog lamp(UNR19)*
21. Reversing lamp(UNR23)
22. Front position lamp(UNR07)
23. Rear position lamp(UNR07)
24. Parking lamp(UNR77)*
25. Stop lamp(UNR07)
26. S3 stop lamp(UNR07)*
27. End-outline marker lamp(UNR07)*
28. Side-marker lamp(UNR91)*
29. Reflex reflector(UNR03)
30. Dynamic braking(UNR13/13h)

* **Optional**



Safety Testing Items for Category N1 (2/2)



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31. ABS(UNR13h)*
32. Impact protection of driver for steering system(UNR12)
33. Occupants protection of lateral collision(UNR95)
34. Steering equipment(UNR79)
35. Safety belt anchorage(UNR14)
36. Seats strength(UNR17)
37. Head restraint(UNR17/25)
38. Door latches & Hinges(UNR11)
39. Headlamps(w/o gas-discharge headlamps)(UNR031/112)
40. Rear fog lamp(UNR38)
41. EMC(UNR10)
42. AFS(UNR123) *
43. Devices for indirect vision with reversing-assistance lamp*
44. Battery electric vehicles safety(UNR100) *
45. Fuel tank(UNR34)
46. TPMS(UNR141)
47. Manoeuvring lamp(UNR23)*
48. Daytime running light(UNR87)
49. LED light source(UNR128)*
50. Location and identification of hand control, tell-tales and indicators(UNR121)
51. SLD(UNR89)*
52. External projections(UNR61)
53. Quiet road transport vehicle(UNR138)*
54. Vehicle of CHSS(UNR134)*
55. CHSS(UNR134)*
56. Components of CHSS(UNR134)*
57. BAS(UNR139)
58. ESC(UNR140)



***Optional**

Safety Testing Items for Category M2/M3 (1/2)



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1. Motor vehicle specification
2. Installation of lights(UNR48/70/104)
3. Static braking
4. Inspection of LPG fuel system*
5. Inspection of CNG fuel system*
6. Vehicle tilt stability
7. Installation of turning & reversing AWD*
8. Installation of AWD(UNR28)
9. Tachograph / Digital tachograph
10. Flammability of interior material(UNR118)
11. Retro-reflective marking(UNR104)*
12. AWD(UNR28)
13. Speedometer(UNR39)
14. Installation of devices for indirect vision(UNR46/81)
15. Safety glass(UNR43)
16. Safety belt(UNR16)
17. Devices for indirect vision(UNR46)
18. Tyre(UNR54)
19. Filament lamp(UNR37/99)
20. Gas-discharge headlamp(UNR98)*
21. Direction indicator(UNR06)
23. Front fog lamp(UNR19)*
24. Reversing lamp(UNR23)
25. Front position lamp(UNR07)
26. Rear position lamp(UNR07)
27. Parking lamp(UNR77)*
28. Stop lamp(UNR07)
29. S3 stop lamp(UNR07)*
30. End-outline marker lamp(UNR07)*
31. Side-marker lamp(UNR91)

* Optional



Safety Testing Items for Category M2/M3 (2/2)



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- 32. Reflex reflector(UNR03)
- 33. Dynamic braking(UNR13)
- 34. ABS(UNR13)*
- 35. Steering equipment(UNR79)
- 36. Safety belt anchorage(UNR14)
- 37. Seats strength(UNR17/80)
- 38. Head restraint(UNR17/25)
- 39. Headlamp(w/o gas-discharge headlamp)(UNR031/112)
- 40. Rear fog lamp(UNR38)
- 41. Prevention of fire risks(UNR107)
- 42. Strength of super structure(UNR66)
- 43. EMC(UNR10)
- 44. AFS(UNR123) *
- 45. Devices for indirect vision with reversing-assistance lamp*
- 46. Low floor vehicle(UNR107) *
- 47. Battery electric vehicles safety(UNR100) *
- 48. Fuel tank(UNR34)
- 49. Wheelchair accessible vehicle*
- 50. Manoeuvring lamp(UNR23)*
- 51. LDWS(UNR130)
- 52. Driving vision assistant system
- 53. AEBS(UNR131)
- 54. Daytime running light(UNR87)
- 55. LED light source(UNR128)*
- 56. Location and identification of hand control, tell-tales and indicators(UNR121)
- 57. SLD(UNR89)
- 58. Quiet road transport vehicle(UNR138)*
- 59. Vehicle of CHSS(UNR134)*
- 60. CHSS(UNR134)*
- 61. Components of CHSS(UNR134)*

***Optional**



Safety Testing Items for Category N2/N3 (1/2)



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1. Motor vehicle specification
2. Installation of lights(UNR48/70/104)
3. Static braking
4. Inspection of LPG fuel system*
5. Inspection of CNG fuel system*
6. LPD& RUPD
7. Vehicle tilt stability
8. Installation of AWD(UNR28)
9. Installation of payload meter
10. Installation of turning & reversing AWD
11. Payload meter
12. Tachograph / Digital tachograph
13. Retro-reflective marking(UNR104)*
14. AWD(UNR28)
15. Speedometer(UNR39)
16. Installation of devices for indirect vision(UNR46/81)
17. Safety glass(UNR43)
18. Safety belt(UNR16)
19. Devices for indirect vision(UNR46)
20. Tyre(UNR54)

21. Filament lamp(UNR37/99)
22. Gas-discharge headlamp(UNR98)*
23. Direction indicator(UNR06)
24. Front fog lamp(UNR19)*
25. Reversing lamp(UNR23)
26. Front position lamp(UNR07)
27. Rear position lamp(UNR07)
28. Parking lamp(UNR77)*
29. Stop lamp(UNR07)
30. S3 stop lamp(UNR07)*

***Optional**



Safety Testing Items for Category N2/N3 (2/2)



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31. End-outline marker lamp(UNR07)
32. Side-marker lamps(UNR91)
33. Reflex reflectors(UNR03)
34. Dynamic braking(UNR13)
35. ABS(UNR13)*
36. Steering equipment(UNR79)
37. Safety belt anchorage(UNR14)
38. Seats strength(UNR17/80)
39. Headlamp(w/o gas-discharge headlamp)(UNR031/112)
40. Rear fog lamp(UNR38)
41. EMC(UNR10)
42. AFS(UNR123) *
43. Devices for indirect vision with reversing-assistance lamp*
44. Installation of mechanical coupling device(UNR55) *
45. Mechanical coupling device(UNR55) *
46. Battery electric vehicles safety(UNR100) *
47. Fuel tank(UNR34)
48. Manoeuvring lamp(UNR23)*
49. LDWS(UNR130)
50. Driving vision assistant system
51. AEBS(UNR131)
52. Daytime running light(UNR87)
53. LED light source(UNR128)*
54. Location and identification of hand control, tell-tales and indicators(UNR121)
***Optional**
55. SLD(UNR89)
56. External projections(UNR61)
57. Quiet road transport vehicle(UNR138)
58. Rear marking plate for Heavy N (UNR70)
59. Vehicle of CHSS(UNR134)*
60. CHSS(UNR134)*
61. Components of CHSS(UNR134)*



Safety Testing Items for Category O



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1. Motor vehicle specification
2. Installation of lights(UNR48/70/104)
3. Static braking
4. LPD& RUPD
5. Installation of payload meter
6. Installation of turning & reversing AWD
7. Payload meter
8. Strength of coupling device(O1/O2)
9. Retro-reflective marking(UNR104)
10. Tyre(UNR54)
11. Filament lamp(UNR37/99)
12. Direction indicator(UNR06)
13. Reversing lamp(UNR23)
14. Front position lamp(UNR07)
15. Rear position lamp(UNR07)
16. Parking lamp(UNR77)*
17. Stop lamp(UNR07)
18. S3 stop lamp(UNR07)*
19. End-outline marker lamp(UNR07)*
20. Side-marker lamp(UNR91)*
21. Reflex reflector(UNR03)
22. Dynamic braking(UNR13)
23. ABS(UNR13)
24. Steering equipment(UNR79)
25. Rear fog lamp(UNR38)
26. EMC(UNR10)
27. Installation of mechanical coupling device(UNR55)
28. Mechanical coupling device(UNR55)
29. Fuel tank(UNR34)
30. LED light source(UNR128)*
31. Retro-reflective-marking(UNR104)
32. Rear marking plate for Long Trailer(UNR70)

***Optional**





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Thank you for your attention!



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