

「車輛型式安全審驗管理辦法」第十四條附表車輛安全檢測基準部分增修條文內容檢討

(五)

會議資料

1. UN 法規涉及國內車輛安全法規內容彙整.....P.2
2. 車輛型式安全審驗管理辦法附表發布後部分條文修正草案對照表內容彙整.....P.43

UN 法規增修涉及國內車輛安全法規內容彙整（計 9 項）

| 項次 | 法規名稱 | 修訂法規內容 | 新增之法規項目 | 頁碼 | UN 版本別 | 內容摘要 |
|----|----------------|--------|---------|------|--------------------------|---|
| 1 | 四十九、座椅強度 | ◎ | | P.4 | UN R17 08-R5-C1、08-S4 | 1. 參考 UN R17 08-R5-C1 版，修訂不影響基準內容。 2. 參考 UN R17 08-S4 版，修訂長條型座椅之椅背強度試驗。 |
| 2 | 四十九之一、座椅強度 | ◎ | | P.4 | UN R17 08-R5-C1、08-S4 | 1. 參考 UN R17 08-R5-C1 版，修訂不影響基準內容。 2. 參考 UN R17 08-S4 版，修訂長條型座椅之椅背強度試驗。 |
| 3 | 五十之一、頭枕 | ◎ | | P.6 | UN R17 08-S4 | 參考 UN R17 08-S4 版，修訂長條型座椅之頭枕試驗。 |
| 4 | 四十九之二、座椅強度(草案) | | ◎ | P.7 | UN R17 09、09-S1 | 1. 以基準「四十九之一、座椅強度」為基礎。 2. 所調整與基準四十九之一內容差異如下： 參考 UN R17 09 版，修訂椅背及分隔系統之檢測標準，以及 M1 類車輛避免移動行李傷害之乘員保護相關規定。 3. 參考 UN R17 09-S1 版，修訂不影響基準內容。 |
| 5 | 五十之二、頭枕 | ◎ | | P.16 | UN R17 08-S4、08-C1、09-C1 | 1. 參考 UN R17 08-S4 版，修訂長條型座椅之頭枕試驗。 2. 參考 UN R17 08-C1、09-C1 版，修訂不影響基準內容。 |

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| 6 | 二、車輛規格規定 | ◎ | | P.17 | UN R16 07-S6、 08 →08-S2 UN R107 07-C1 | 參考 UNR16 07-S6、08-S2 版，增訂可拆式後排座椅之安全帶提醒裝置實施時間及潤飾中文語意。 |
| 7 | 二十三之二、間接視野裝置安裝規定 | ◎ | | P.20 | UN R46 04-S6、04-S7、04-S8 | <p>1.參考 UN R46 04-S6 版，修訂 I 至 IV 類攝影機-顯示器裝置(CMS)，其最小要求視野畫面內之顯像共用區規範等相關規定。</p> <p>2.參考 UN R46 04-S7 版，修訂 CMS 之顯示器不應顯示視野範圍外之其他資訊，增訂 I 至 IV 類攝影機-顯示器裝置於車輛特殊操作(如倒車)時，允許透過改變視野範圍、放大倍率及解像度之短暫性修正視野來取得更佳視野等相關規定。</p> <p>3.參考 UN R46 04-S8 版，修訂 CMS 之車輛內部之顯示器，允許連續圖像組合且不必明確區別不同之視野，並可使用標示線告知駕駛任何放大倍率之改變。</p> <p>4.參考 UNR46 04 系列，修訂「二十七之一、間接視野裝置」之 12.2 於未變更技術內容情況下，納入至本項整車安裝規定，並刪除原「二十七之一、間接視野裝置」之規定。</p> |
| 8 | 二十七、間接視野裝置 | ◎ | | P.30 | UN R46 04-S6、04-S9 | <p>1. UNR46 04-S6 版之修訂不影響國內基準。</p> <p>2. 參考 UN R46 04-S9 版，修訂球面、非球面及非球面視鏡之名詞釋義及反射面曲</p> |

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| 9 | 二十七之一、間接視野裝置 | ◎ | | P.30 | | 率半徑(r)值之相關規定。 3.配合「二十三之二、間接視野裝置安裝規定」新增 11 之規定，刪除「二十七之一、間接視野裝置」12.2 之規定。 |

UN R17 SEATS 08-R5-C1、08-S4 座椅

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| 08-R5-C1 | | | |
| <p>5. Requirements</p> <p>...</p> <p>5.2.3.2. The requirements of paragraph 5.2.3. shall not apply to rearmost seats, to back-to-back seats or to seats that comply with the provisions of Regulation No. 21 "Uniform Provisions concerning the Approval of Vehicles with regard to their Interior Fittings" (E/ECE/324-E/ECE/TRANS/505/Rev.1/Add.20/Rev.2, as last amended).</p> | <p>5. Requirements</p> <p>...</p> <p>5.2.3.2. The requirements of paragraph 5.1.3. shall not apply to rearmost seats, to back-to-back seats or to seats that comply with the provisions of Regulation No. 21 "Uniform Provisions concerning the Approval of Vehicles with regard to their Interior Fittings" (E/ECE/324-E/ECE/TRANS/505/Rev.1/Add.20/Rev.2, as last amended).</p> | <p>四十九、座椅強度</p> <p>四十九之一、座椅強度</p> <p>(此為 UN 項次誤植改正，將條文 5.1.3 修正為 5.2.3 【不影響基準內容】)</p> <p>參考資料</p> <p>UN R17 08-R5-C1</p> <p>5.2.3. The rear parts of seats situated in area 1, defined in paragraph 6.8.1.1. below shall pass the energy dissipation test in accordance with the requirements of Annex 6 to this Regulation.</p> | <p>四十九、座椅強度</p> <p>四十九之一、座椅強度</p> <p>4.4.5 椅背能量吸收試驗，此試驗僅適用於安裝在 M1，以及選擇欲符合 4. 規範之 M2 車輛之座椅，而車輛最後方之座椅及椅背相靠之座椅除外：</p> <p>針對不同型式座椅之區域 1，以質量六·八公斤，直徑一六五公釐之剛性頭部模型，由座椅後上方四五度以二四·一公里/小時之速度衝擊，頭部模型之減速度不得連續三毫秒超過八 0 g，且試驗過程中及結束後，應無危險之鋸齒邊緣出現。</p> |
| 08-S4 | | | |
| <p>5. Requirements</p> <p>...</p> | <p>5. Requirements</p> <p>...</p> | <p>四十九、座椅強度</p> <p>四十九之一、座椅強度</p> | <p>四十九、座椅強度</p> <p>四十九之一、座椅強度</p> |

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| <p>5.2.7. After the tests, the displacement systems intended for permitting or facilitating the access of occupants shall be in working order; they shall be capable, at least once, of being unlocked and shall permit the displacement of the seat or the part of the seat for which they are intended.</p> <p>Any other displacement systems, as well as adjustment systems and their locking systems are not required to be in working order.</p> <p>In the case of seats provided with head restraints, the strength of the seat-back and of its locking devices is deemed to meet the requirements set out in paragraph 6.2. when, after testing in accordance with paragraph 6.4.3.6 below., no breakage of the seat or seat-back has occurred: otherwise, it shall be shown that the seat is capable of meeting the test requirements set out in paragraph 6.2. below.</p> <p>In the case of seats (benches) with more places to sit than head restraints and in case the manufacturer chooses not to apply 53 daNm during the test of paragraph 6.4., the seat back strength test of para. 6.2. has to be</p> | <p>5.2.7. After the tests, the displacement systems intended for permitting or facilitating the access of occupants shall be in working order; they shall be capable, at least once, of being unlocked and shall permit the displacement of the seat or the part of the seat for which they are intended.</p> <p>Any other displacement systems, as well as adjustment systems and their locking systems are not required to be in working order.</p> <p>In the case of seats provided with head restraints, the strength of the seat-back and of its locking devices is deemed to meet the requirements set out in paragraph 6.2. when, after testing in accordance with paragraph 6.4.3.6 below., no breakage of the seat or seat-back has occurred: otherwise, it shall be shown that the seat is capable of meeting the test requirements set out in paragraph 6.2. below.</p> <p>In the case of seats (benches) with more places to sit than head restraints, the test described in paragraph 6.2. below shall be carried out.</p> | <p>4.4.4.7.1 測試後，與乘員能否順利進出座位有關之位移系統必須能正常運作；此位移系統必須至少能解鎖一次，且其所對應座椅或座椅元件能順利移動。</p> <p>其他的位移系統，以及調整系統與其鎖定系統，可不處於正常工作狀態。</p> <p>對配備頭枕之座椅而言，其椅背及其鎖定裝置強度依照本基準中「頭枕」條文 4.3.2.7 之規定測試後，其座椅或椅背未發生破裂現象時，則視為符合 4.4.3 之規範；否則座椅應證明其能符合 4.4.3 規範之要求。</p> <p>對於座位數多於頭枕數之座椅(長條型座椅)，且申請者選擇不於本基準中「頭枕」規定試驗時施加五百三十牛頓-米之力矩，則於符合本基準中「頭枕」規定試驗之下，應執行 4.4.3</p> | <p>4.4.4.7.1 測試後，與乘員能否順利進出座位有關之位移系統必須能正常運作；此位移系統必須至少能解鎖一次，且其所對應座椅或座椅元件能順利移動。</p> <p>其他的位移系統，以及調整系統與其鎖定系統，可不處於正常工作狀態。</p> <p>對配備頭枕之座椅而言，其椅背及其鎖定裝置強度依照本基準「頭枕」章節 4.3.2.7 之規定測試後，其座椅或椅背未發生破裂現象時，則視為符合 4.4.3 之規範；否則座椅應證明其能符合 4.4.3 規範之要求。</p> <p>對座位數多於頭枕數之座椅(長椅)而言，仍應執行 4.4.3 之測試。</p> |
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| performed in addition to the test of para. 6.4. | | 之椅背強度 <u>試驗</u> 。 | |
| 6. Tests ... | 6. Tests ... | 五十之一、頭枕 五十之二、頭枕 | 五十之一、頭枕 五十之二、頭枕 |
| 6.4.3.2. The displaced reference line is determined by applying to the part simulating the back of the manikin referred to in Annex 3 to this Regulation an initial force producing a rearward moment of 37.3 daNm about the R point. In the case of simultaneous testing of bench seats, the rearward moment shall be applied to all seating positions of the bench simultaneously, irrespective of this position being equipped with or without head restraint. | 6.4.3.2. The displaced reference line is determined by applying to the part simulating the back of the manikin referred to in Annex 3 to this Regulation an initial force producing a rearward moment of 37.3 daNm about the R point. | 4.3.2 試驗： ... 4.3.2.3 對人偶背部模型向後施加一會在R點產生 <u>三百七十三</u> 牛頓-米力矩的力，以決定出移動參考線 r1。 <u>對於長條型座椅之同時施力試驗，不論該座位是否配備頭枕，長條型座椅之所有座位，應同時施加向後力矩。</u> | 4.3.2 試驗： ... 4.3.2.3 對人偶背部模型向後施加一會在R點產生 <u>三七三</u> 牛頓-米力矩的力，以決定出移動參考線 r1。 |
| 6.4.3.3. By means of a spherical headform 165 mm in diameter an initial force producing a moment of 37.3 daNm about the R point is applied at right angles to the displaced reference line at a distance of 65 mm below the top of the head restraint, the reference line being kept in its displaced position in accordance with paragraph 6.4.3.2. above. In the case of simultaneous testing of bench seats, the force shall be applied to all head restraints as present on the bench seats simultaneously. | 6.4.3.3. By means of a spherical headform 165 mm in diameter an initial force producing a moment of 37.3 daNm about the R point is applied at right angles to the displaced reference line at a distance of 65 mm below the top of the head restraint, the reference line being kept in its displaced position in accordance with paragraph 6.4.3.2. above. | 4.3.2.4 在移動參考線 r1 上，頭枕頂端下方 <u>六十五</u> 公釐處，依垂直角度對球狀頭部模型(直徑為 <u>一百六十五</u> 公釐)施加一會在R點產生 <u>三百七十三</u> 牛頓-米力矩的力，參考線應維持在上述 4.3.2.3 之移動位置上。 <u>對於長條型座椅之同時施力試驗，應同時施力於長條型座椅上所配備之所有頭枕。</u> | 4.3.2.4 在移動參考線 r1 上，頭枕頂端下方 <u>六五</u> 公釐處，依垂直角度對球狀頭部模型(直徑為 <u>一六五</u> 公釐)施加一會在R點產生 <u>三七三</u> 牛頓-米力矩的力，參考線應維持在上述 4.3.2.3 之移動位置上。 |

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| 6.4.3.6. To check the effectiveness of the head restraint, the initial load specified in paragraphs 6.4.3.3. and 6.4.3.3.2. is increased to 89 daN unless the breakage of the seat or seat-back occurs earlier. At the request of the manufacturer the load of paragraph 6.4.3.2. is increased simultaneously to 53 daNm for seating positions without head restraints only to allow simultaneous compliance with paragraphs 5.15. and 6.2. | 6.4.3.6. To check the effectiveness of the head restraint, the initial load specified in paragraphs 6.4.3.3. and 6.4.3.3.2. is increased to 89 daN unless the breakage of the seat or seat-back occurs earlier. | 4.3.2.7 在 4.3.2.4 之情況下，於頭枕頂端下方 <u>六十五</u> 公釐或以下的距離，繼續施力至 <u>八百九十</u> 牛頓，除非是座椅或其椅背提早發生破損。 <u>對於未配備頭枕之座位，可依申請者要求將 4.3.2.3 之負載同時增加至五百三十牛頓-米力矩，以同時驗證其符合本基準中「座椅強度」4.4.4.7.1 及 4.4.3 之規定。</u> | 4.3.2.7 在 4.3.2.4 之情況下，於頭枕頂端下方 <u>六五</u> 公釐或以下的距離，繼續施力至 <u>八九〇</u> 牛頓，除非是座椅或其椅背提早發生破損。 |
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UN R17 SEATS 09 座椅

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| 13. Transitional provisions ... | | <u>四十九之二、座椅強度(草案)</u> | 四十九之一、座椅強度 |
| 13.12. As from the official date of entry into force of the 09 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals under this Regulation as amended by the 09 series of amendments. | 聯合國 09 版生效日期：2019.05.28 歐盟 09 版系列實施日期：2022.07.06 | 1. 實施時間及適用範圍： 1.1 中華民國 <u>一百十四年一月一日</u> 起，使用於 M 及 N 類車輛之新型式座椅及中華民國 <u>一百十六年一月一日</u> 起，使用於 M 及 N 類車輛之各型式座椅，其座椅強度，應符合本項規定。 | 1. 實施時間及適用範圍： 1.1 中華民國 <u>一百零六年一月一日起，使用於 M 及 N 類車輛之新型式座椅及中華民國一百零八年一月一日起，使用於 M 及 N 類車輛之各型式座椅，其座椅強度，應符合本項規定。</u> |
| 13.12.1. As from 1 September 2020, Contracting Parties applying this Regulation shall not be obliged to accept type approvals to the preceding series of amendments that | (自 2020.09.01 起，會員國不應接受前次版本之型式認證) | <u>1.1.1 已符合本基準項次「四十九之一」規定之使用於 M1 類車輛之既</u> | <u>1.1.1 中華民國一百十一年一月一日起，使用於第三類型之 M3 類車輛之各型式乘客座椅，若其座椅係藉由夾持方式固定於車體結構上而非</u> |




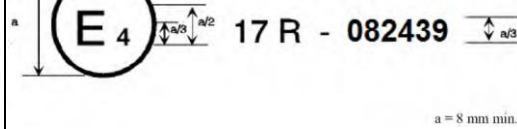
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| <p>were first issued on or after 1 September 2020.</p> <p>13.12.2. Until 1 September 2022, Contracting Parties applying this Regulation shall accept type approvals to the preceding series of amendments that were first issued before 1 September 2020.</p> <p>13.12.3. As from 1 September 2022, Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the preceding series of amendments to this Regulation.</p> <p>13.12.4. Notwithstanding paragraph 13.12.3., Contracting Parties applying this Regulation shall continue to accept type-approvals to the preceding series of amendments to this Regulation, for vehicles which are not affected by the changes introduced by the 09 series of amendments.</p> <p>13.12.5. Contracting Parties applying this Regulation shall not refuse to grant type approvals according to any preceding series of amendments to this Regulation or extensions thereof.</p> | <p>(2022.09.01 之前，會員國應接受 2020.09.01 之前首次發布之型式認證)</p> <p>(自 2022.09.01 起，會員國不應接受前次版本之型式認證)</p> <p>(儘管 13.12.3 條文規定，對於不受 09 版變更之車輛(N、M2 及 M3)，會員國應繼續接受前一版本之型式認證)</p> | <p><u>有型式座椅，另應符合 4.5.2.1.2 及 4.5.2.2.2 規定。</u></p> <p><u>1.1.2 已符合本基準項次「四十九之一」規定之使用於 N、M2 及 M3 類車輛之既有型式座椅，亦視同符合本項規定。</u></p> <p><u>1.2 本項規定不適用於後向式座椅及幼童專用車之幼童座椅。</u></p> <p><u>1.3 除大客車及幼童專用車以外之車輛，申請少量車型安全審驗或逐車少量車型安全審驗者，得免符合本項「座椅強度」規定。</u></p> | <p><u>機械固定，則另應符合 5.1.1.3 規定。</u></p> <p><u>1.1.2 已符合本基準項次「四十九」規定之下列既有型式座椅，亦視同符合本項規定。</u></p> <p><u>1.1.2.1 安裝在 M1 類車輛之座椅。</u></p> <p><u>1.1.2.2 安裝在 N 類車輛之座椅。</u></p> <p><u>1.1.2.3 安裝在 M2 與 M3 類車輛(第一類及 A 類)之座椅。</u></p> <p><u>1.1.2.4 安裝在 M2 與 M3 類車輛(第二類、第三類及 B 類)之非乘客座椅。</u></p> <p><u>1.1.2.5 安裝在 M2 類車輛(第二類、第三類及 B 類)之乘客座椅。</u></p> <p><u>1.1.2.6 安裝在 M3 類車輛(第二類及 B 類)之乘客座椅。</u></p> <p><u>1.2 本項規定不適用於後向式座椅及幼童專用車之幼童座椅。</u></p> <p><u>1.3 除大客車及幼童專用車以外之車輛，申請少量車型安全審驗或逐車少量車型安全審驗者，得免符合本項「座椅強度」規定。</u></p> |
| <p>4. Approval</p> <p>...</p> | <p>4. Approval</p> <p>...</p> | <p>(修訂符合編號前兩位數字為目前版本 09，故左列 09 版修訂並不影響</p> | |

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| 4.2. An approval number shall be assigned to each type approved. Its first two digits (at present 09, corresponding to the 09 series of amendments) ... | 4.2. An approval number shall be assigned to each type approved. Its first two digits (at present 08, corresponding to the 08 series of amendments) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party may not assign the same number either to the same vehicle type equipped with other types of seats or head restraints or with seats anchored differently on the vehicle (this applies both to seats with and to those without head restraints) or to another vehicle type. | 基準內容) | |
| 5. Requirements ... 5.16.1. Seat-backs Seat-backs and/or head restraints located such that they constitute the forward boundary of the luggage compartment, all seats being in place and in the normal position of use as indicated by the manufacturer, shall have sufficient strength to protect the occupants | 5. Requirements ... 5.16.1. Seat-backs Seat-backs and/or head restraints located such that they constitute the forward boundary of the luggage compartment, all seats being in place and in the normal position of use as indicated by the manufacturer, shall have sufficient strength to protect the occupants | 4.5 M1 類車輛避免移動行李傷害之乘員保護 ... 4.5.2 檢測標準 4.5.2.1 椅背： 4.5.2.1.1 測試過程中及測試後，椅背及鎖定裝置須保持在原來位置，且允許椅背及其固定裝置在測試過程中發生變形；若測試之椅背及/或頭枕前部零件之表面包覆材質硬度大於五 0 Shore A，則不能向前移動超 | 4.5 M1 類車輛避免移動行李傷害之乘員保護 ... 4.5.2 檢測標準 4.5.2.1 椅背： 4.5.2.1.1 測試過程中及測試後，椅背及鎖定裝置須保持在原來位置，且允許椅背及其固定裝置在測試過程中發生變形；若測試之椅背及/或頭枕前部零件之表面包覆材質硬度大於五 0 Shore A，則不能向前移動超 |

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| <p>from displaced luggage in a frontal impact. This requirement is deemed to be met if, during and after the test described in Annex 9, the seat-backs remain in position, and the locking mechanisms remain in place. However, the deformation of the seat-backs and their fastenings during the test is permitted, provided that the forward contour of the parts of the tested seat-back and/or head restraints, that are harder than 50 Shore A, does not move forward of a transverse vertical plane which passes through:</p> <p>(a) A point of 150 mm forward of the R point of the seat in question, for the parts of the head restraint;</p> <p>(b) A point of 100 mm forward of the R point of the seat in question, for parts of the seat-back;</p> <p>excluding the rebound phases of the test blocks.</p> <p>For integrated head restraints, the limit between the head restraint and the seat-back is defined by the plane perpendicular to the reference line 540 mm from the R point.</p> <p>All measurements shall be taken in the longitudinal median plane of the</p> | <p>from displaced luggage in a frontal impact. This requirement is deemed to be met if, during and after the test described in Annex 9, the seat-backs remain in position and the locking mechanisms remain in place. However, the deformation of the seat-backs and their fastenings during the test is permitted, provided that the forward contour of the parts of the tested seat-back and/or head restraints, that are harder than 50 Shore A, does not move forward of a transverse vertical plane which passes through:</p> <p>(a) A point of 150 mm forward of the R point of the seat in question, for the parts of the head restraint;</p> <p>(b) A point of 100 mm forward of the R point of the seat in question, for parts of the seat-back;</p> <p>Excluding the rebound phases of the test blocks.</p> <p>For integrated head restraints, the limit between the head restraint and the seat-back is defined by the plane perpendicular to the reference line 540 mm from the R point.</p> <p>All measurements shall be taken in the longitudinal median plane of the</p> | <p>出通過下述點之橫切垂直面(不包括測試過程中測試塊所造成的彈起)：</p> <p>4.5.2.1.1.1 對頭枕的部分，測試座椅 R 點前方一五 0 公釐的點。</p> <p>4.5.2.1.1.2 對椅背的部分，測試座椅 R 點前方一 0 0 公釐的點。</p> <p>4.5.2.1.1.3 和椅背為一體的頭枕，椅背和頭枕之界線為垂直於參考線且距離 R 點五四 0 公釐處的平面。</p> | <p>出通過下述點之橫切垂直面(不包括測試過程中測試塊所造成的彈起)：</p> <p>4.5.2.1.1.1 對頭枕的部分，測試座椅 R 點前方一五 0 公釐的點。</p> <p>4.5.2.1.1.2 對椅背的部分，測試座椅 R 點前方一 0 0 公釐的點。</p> <p>4.5.2.1.1.3 和椅背為一體的頭枕，椅背和頭枕之界線為垂直於參考線且距離 R 點五四 0 公釐處的平面。</p> |
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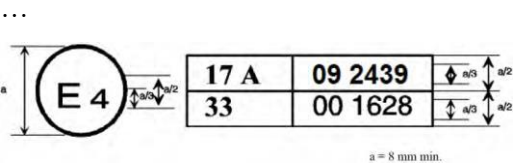
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| <p>corresponding seat or seating position for each seating position constituting the forward boundary of the luggage compartment.</p> <p>During the test described in Annex 9, the test blocks shall remain behind the seat-back(s) in question. In case of damage to a safety-belt retractor, it shall be verified that the retractor is locked as a result of the test or that it can be locked by a manual pull out of the strap.</p> | <p>corresponding seat or seating position for each seating position constituting the forward boundary of the luggage compartment.</p> <p>During the test described in Annex 9, the test blocks shall remain behind the seat-back(s) in question.</p> | | |
| <p>5.16.2. Partitioning systems</p> <p>At the request of the vehicle manufacturer, the test described in Annex 9 may be carried out with the partitioning systems in place, if these systems are fitted as standard equipment for the particular type of vehicle.</p> <p>Partitioning systems, netting wire mesh located above the seat-backs in their normal position of use, shall be tested according to paragraph 2.2. of Annex 9.</p> <p>This requirement is deemed to be met if, during the test, the partitioning systems remain in position. However, the deformation of the partitioning systems during the test is permitted, provided that the</p> | <p>5.16.2. Partitioning systems</p> <p>At the request of the vehicle manufacturer, the test described in Annex 9 may be carried out with the partitioning systems in place, if these systems are fitted as standard equipment for the particular type of vehicle.</p> <p>Partitioning systems, netting wire mesh located above the seat-backs in their normal position of use, shall be tested according to paragraph 2.2. of Annex 9.</p> <p>This requirement is deemed to be met if, during the test, the partitioning systems remain in position. However, the deformation of the partitioning systems during the test is permitted, provided that the</p> | <p>4.5.2.1.2 測試塊應維持在測試座椅椅背後面。<u>若安全帶捲收器損壞，則應驗證捲收器是否因試驗而被鎖住，或其可藉由手動拉出織帶而被鎖住。</u></p> <p>4.5.2.2 分隔系統：</p> <p>4.5.2.2.1 在測試時分隔系統必須要保持在原來的位置，允許測試過程中發生變形，若測試之分隔系統(包括部分的椅背及/或頭枕)前部之表面包覆材質硬度大於五 0 Shore A，則</p> | <p>4.5.2.1.2 測試塊應維持在測試座椅椅背後面。</p> <p>4.5.2.2 分隔系統：</p> <p>4.5.2.2.1 在測試時分隔系統必須要保持在原來的位置，允許測試過程中發生變形，若測試之分隔系統(包括部分的椅背及/或頭枕)前部之表面包覆材質硬度大於五 0 Shore A，則</p> |

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| forward contour of the partitioning (including parts of the tested seat-back(s) and/or head restraint(s)*/ that are harder than 50 Shore A does not move forward of a transverse vertical plane which passes through: | forward contour of the partitioning (including parts of the tested seat-back(s) and/or head restraint(s)*/ that are harder than 50 Shore A does not move forward of a transverse vertical plane which passes through: | 不能向前移動超出通過下述點之橫切垂直面： | 不能向前移動超出通過下述點之橫切垂直面： |
| (a) A point of 150 mm forward of the R point of the seat in question, for parts of the head restraint; | (a) A point of 150 mm forward of the R point of the seat in question, for parts of the head restraint; | 4.5.2.2.1.1 對頭枕的部分，測試座椅 R 點前方一五 0 公釐的點。 | 4.5.2.2.1.1 對頭枕的部分，測試座椅 R 點前方一五 0 公釐的點。 |
| (b) A point of 100 mm forward of the R point of the seat in question, for parts of the seat-back and part of the partitioning system others than the head restraint. | (b) A point of 100 mm forward of the R point of the seat in question, for parts of the seat-back and part of the partitioning system others than the head restraint. | 4.5.2.2.1.2 對椅背及分隔系統(頭枕除外)的部分，測試座椅 R 點前方一 0 0 公釐的點。 | 4.5.2.2.1.2 對椅背及分隔系統(頭枕除外)的部分，測試座椅 R 點前方一 0 0 公釐的點。 |
| For integrated head restraint, the limit between the head restraint and the seat-back is the one defined in paragraph 5.16.1. | For integrated head restraint, the limit between the head restraint and the seat-back is the one defined in paragraph 5.16.1. | 4.5.2.2.1.3 和椅背為一體的頭枕，椅背和頭枕之界線為垂直於參考線且距離 R 點五四 0 公釐處的平面。 | |
| All measurements shall be taken in the longitudinal median plane of the corresponding seat or seating position for each seating position constituting the forward boundary of the luggage compartment. | All measurements shall be taken in the longitudinal median plane of the corresponding seat or seating position for each seating position constituting the forward boundary of the luggage compartment. | | |
| After the test, no sharp or rough edges likely to increase the danger or severity of injuries of the occupants shall be present. In case of damage to a safety-belt retractor, it shall be | After the test, no sharp or rough edges likely to increase the danger or severity of injuries of the occupants shall be present. | 4.5.2.2.2 測試後，不得產生可能增加乘員危險或加重傷害之銳利或粗糙邊緣。 <u>若安全帶捲收器損壞，則應驗證捲收器已被鎖住，或其可藉由手</u> | 4.5.2.2.2 測試後，不得產生可能增加乘員危險或加重傷害之銳利或粗糙邊緣。 |

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| verified that the retractor is locked already or that it can be locked by a manual pull out of the strap. | | <u>動拉出織帶而被鎖住。</u> | |
| 7. Conformity of production The conformity of production procedures shall comply with those set out in the Agreement, (Schedule 1, E/ECE/TRANS/505/Rev.3), with the following requirements: | 7. Conformity of production The conformity of production procedures shall comply with those set out in the Agreement, Appendix 2 (E/ECE/324-E/ECE/TRANS/505/Rev.2), with the following requirements: | (修訂本項法規之 COP 規定，惟此修訂內容不影響國內基準條文) | |
| Annex 2 Model A ...  The above approval mark ... approval number 092439. The first two digits of the approval number indicate that the Regulation already contained the 09 series of ... | Annex 2 Model A ...  The above approval mark ... approval number 082439. The first two digits of the approval number indicate that the Regulation already contained the 08 series of ... | (此為認證 mark 版本修訂，惟此修訂內容不影響國內基準條文) | |
| Model B ...  | Model B ...  | | |

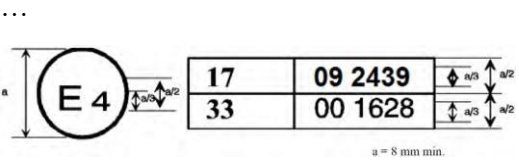
The above approval mark ... approval number **092439**. The first two digits of the approval number indicate that the Regulation already contained the **09** series of amendments at the time of approval.

Model C



The approval numbers indicate that ... included the **09** series of amendments but **UN** Regulation No. 33 was still in its original form. ...

Model D



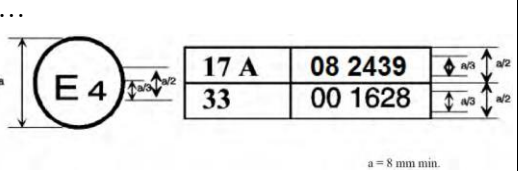
The above approval mark ... included the **09** series of amendments but **UN** Regulation No. 33 was still in its original form.

Annex 9

...

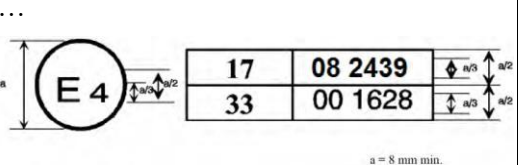
The above approval mark ... approval number **082439**. The first two digits of the approval number indicate that the Regulation already contained the **08** series of amendments at the time of approval.

Model C



The approval numbers indicate that ... included the **08** series of amendments but Regulation No. 33 was still in its original form. ...

Model D



The above approval mark ... included the **08** series of amendments but Regulation No. 33 was still in its original form.

Annex 9

...

4.5 M1 類車輛避免移動行李傷害之乘員保護

4.5 M1 類車輛避免移動行李傷害之乘員保護

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| 2.1.1.6. Seats behind which the type 1 blocks cannot be installed are exempted from this test | 2.1.1.6. Seats behind which the type 1 blocks cannot be installed are exempted from this test | ... 4.5.1.1.1.7 後部無法放置型式 1 測試塊之座椅得免除此測試。 | ... 4.5.1.1.1.7 後部無法放置型式 1 測試塊之座椅得免除此測試。 |
| 2.1.1.7. All seating positions of the seat row under test shall be fitted with all components of its safety-belt providing the restraining function that are part of the seat. | | 4.5.1.1.1.8 被試驗之同排座椅的所有座椅位置均應安裝安全帶之所有組件以提供束縛功能(其亦屬座椅的一部份)。 | |

UN R17 SEATS 09-S1 座椅

| 09-S1 | | | |
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| 1. Scope This Regulation applies to: (a) Vehicles of categories M1 and N ¹ with regard to the strength of seats and their anchorages and with regard to their head restraints; (b) Vehicles of categories M2 and M3 ¹ with regard to seats not covered by Regulation No. 80, in respect of the strength of seats and their anchorages, and in respect of their head restraints; (c) Vehicles of category M1 with regard to the design of the rear parts of seat backs and the design of devices intended to protect the occupants from the danger resulting from | 1. Scope This Regulation applies to: (a) Vehicles of categories M1 and N ¹ with regard to the strength of seats and their anchorages and with regard to their head restraints; (b) Vehicles of categories M2 and M3 ¹ with regard to seats not covered by Regulation No. 80, in respect of the strength of seats and their anchorages, and in respect of their head restraints; (c) Vehicles of category M1 with regard to the design of the rear parts of seat backs and the design of devices intended to protect the occupants from the danger resulting from | 四十九之二、座椅強度(草案) 1. 實施時間及適用範圍： ... | 四十九之二、座椅強度(草案) 1. 實施時間及適用範圍： ... |

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| <p>the displacement of luggage in a frontal impact.</p> <p>It does not apply to vehicles with regard to side-facing or rearward-facing seats, or to any head restraint fitted to these seats, with the exception vehicles of category M2 and M3 of classes A and I, subject to the provisions of paragraph 5.1.1.</p> <p>1 As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.6, para. 2 - www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html</p> <p>1 As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.6, para. 2 - www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html</p> | <p>the displacement of luggage in a frontal impact.</p> <p>It does not apply to vehicles with regard to side-facing or rearward-facing seats, or to any head restraint fitted to these seats.</p> <p>1 As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.3, para. 2 - www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html</p> <p>1 As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.3, para. 2 - www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html</p> | <p>(492 條文 4.1.1 已規定 M1、N1、M2 與 M3 (第二類、第三類及 B 類)之車輛禁止設置側向式座椅，且條文 4.3 安裝在第一類、A 類大客車之座椅應符合本項規定。因此本基準已規範第一類、A 類大客車應符合之規定，故修正不影響基準)</p> <p>參考資料</p> <p>UN R17 09-S1</p> <p>5.1.1. The installation of side-facing seats shall be prohibited in vehicles of categories M1, N1, M2 (of class II, III and B) and M3 of a technically permissible laden mass not exceeding 10 tonnes (of class II, III and B).</p> | |
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UN R17 SEATS 08-C1、09-C1 座椅

| 08-C1、09-C1 | | | |
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| <p>6. Tests</p> <p>...</p> | <p>6. Tests</p> <p>...</p> | <p>五十之二、頭枕</p> <p>...</p> <p>4.3 頭枕裝置有效性</p> | <p>五十之二、頭枕</p> <p>...</p> <p>4.3 頭枕裝置有效性</p> |

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| 6.4.3.5. The distance X, provided for in paragraph 5.12. above, between the tangent Y and the displaced reference line is measured. | 6.4.3.5. The distance X, provided for in paragraph 5.11. above, between the tangent Y and the displaced reference line is measured. | ... 4.3.2.6 應量測切線 Y 與移動參考線 rl 間之距離 X。 【修訂內容不影響國內基準】 | ... 4.3.2.6 應量測切線 Y 與移動參考線 rl 間之距離 X。 |
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UN R16 SAFETY BELT 07-S6、08-S2 安全帶

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
|-------------|-----|---|---|
| 07-S6、08-S2 | | | |
| | | <p>二、車輛規格規定</p> <p>7.1.7 安全帶提醒裝置安裝規定</p> <p>7.1.7.1 中華民國一百零二年一月一日起，新型式 M1 類車輛駕駛座及中華民國一百零四年一月一日起，各型式 M1 類車輛駕駛座應配備符合 7.1.7.6 規定之安全帶提醒裝置。車輛製造廠在其他種類車輛的駕駛座配備安全帶提醒系統，亦可依此規定申請認證。</p> <p>7.1.7.2 中華民國一百一十二年一月一日起，新型式 M2、M3、N2 及 N3 類車輛及中華民國一百一十四年一月一日起，各型式 M2、M3、N2 及 N3 類車輛之下列座椅，應配備</p> | <p>(1110907 基準草案版本)</p> <p>二、車輛規格規定</p> <p>7.1.7 安全帶提醒裝置安裝規定</p> <p>7.1.7.1 中華民國一百零二年一月一日起，新型式 M1 類車輛駕駛座及中華民國一百零四年一月一日起，各型式 M1 類車輛駕駛座應配備符合 7.1.7.6 規定之安全帶提醒裝置。車輛製造廠在其他種類車輛的駕駛座配備安全帶提醒系統，亦可依此規定申請認證。</p> <p>7.1.7.2 中華民國一百一十二年一月一日起，新型式 M2、M3、N2 及 N3 類車輛及中華民國一百一十四年一月一日起，各型式 M2、M3、N2 及 N3 類車輛之下列座椅，應配備</p> |



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| <p>15. Transitional provisions</p> <p>...</p> <p>15.4.2. A safety-belt reminder is not compulsory on removable rear seats and on any seat in a row in which there is a suspension seat, for the purpose of granting type-approval to the 07 series of amendment, until 1 September 2022. These exemptions shall remain applicable in the case of extensions of approvals first granted</p> | <p>經查UN條文15.4.2及15.5.6，2022年9月1日前無須要求可拆式後排座椅之安全帶提醒裝置規定，且於2022年9月1日前獲得07或08系列型式認可者，可辦理延伸。至於2022年9月1日後對於申請07或08系列新型式認可，則須要求可拆式後排座椅之安全帶提醒裝置規定。</p> | <p>符合 7.1.7.7 規定之安全帶提醒裝置。檢測機構得依本項基準調和之聯合國車輛安全法規(UN Regulations)，UN R16 07~08 系列及其後續相關修正規範進行測試。</p> <p>7.1.7.2.1 M2、M3、N2 及 N3 類車輛駕駛座及與駕駛座同排之乘客座椅。</p> <p>7.1.7.3 中華民國一百一十二年一月一日起，新型式 M1 及 N1 類車輛及中華民國一百一十四年一月一日起，各型式 M1 及 N1 類車輛之下列座椅，應配備符合 7.1.7.7 規定之安全帶提醒裝置。檢測機構得依本項基準調和之聯合國車輛安全法規(UN Regulations)，UN R16 07~08 系列及其後續相關修正規範進行測試。</p> <p>7.1.7.3.1 M1 及 N1 類車輛之所有座椅 (可拆式之後排座椅，以及於任一排具有懸吊之座椅除外)。</p> <p>7.1.7.3.2 中華民國一百一十五年一月一日起，新型式 M1 及 N1 類車輛，其可拆式之後排座椅，以及於任一排具有懸吊之座椅，應配備符合 7.1.7.7 規定之安全帶提醒裝置。</p> | <p>符合 7.1.7.7 規定之安全帶提醒裝置。檢測機構得依本項基準調和之聯合國車輛安全法規(UN Regulations)，UN R16 07~08 系列及其後續相關修正規範進行測試。</p> <p>7.1.7.2.1 M2、M3、N2 及 N3 類車輛駕駛座及與駕駛座同排之乘客座椅。</p> <p>7.1.7.3 中華民國一百一十二年一月一日起，新型式 M1 及 N1 類車輛及中華民國一百一十四年一月一日起，各型式 M1 及 N1 類車輛之下列座椅，應配備符合 7.1.7.7 規定之安全帶提醒裝置。檢測機構得依本項基準調和之聯合國車輛安全法規(UN Regulations)，UN R16 07~08 系列及其後續相關修正規範進行測試。</p> <p>7.1.7.3.1 M1 及 N1 類車輛之所有座椅。</p> |
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| <p>before 1 September 2022.</p> <p>...</p> <p>15.5.6. Notwithstanding paragraphs 15.5.1. and 15.5.3., Contracting Parties applying this Regulation shall continue to accept exemptions according to paragraph 15.4.2 if the vehicle was first approved to the 07 or the 08 series of amendments to this Regulation before 1 September 2022. These exemptions shall remain applicable in the case of extensions of approvals first granted before 1 September 2022.</p> | <p>經查歐盟目前強制R16 07-S2系列後續修正版本，新型式實施日期為2019.4.23，各型式實施日期為2022.7.6，另尚未公布08版實施日期。</p> | <p>7.1.7.4 本項規定不適用於以下情況：</p> <p>7.1.7.4.1 折疊式輔助座椅(係指正常情況為收合之座椅，可供乘客於臨時情況下簡便操作使用，例如M2、M3 類車輛上可折疊之乘客座椅)，以及配備S型安全帶(包括叉帶)之座椅位置。</p> <p>7.1.7.4.2 救護車、醫療車、靈車、露營車(Motor-caravan)之後排座椅，以及載運身心障礙者車輛、消防車、警備車與供軍方使用之車輛之所有座椅。</p> <p>7.1.7.4.3 可拆式之後排座椅，以及於任一排具有懸吊之座椅。</p> | <p>7.1.7.4 本項規定不適用於以下情況：</p> <p>7.1.7.4.1 折疊式輔助座椅(係指正常情況為收合之座椅，可供乘客於臨時情況下簡便操作使用，例如M2、M3 類車輛上可折疊之乘客座椅)，以及配備S型安全帶(包括叉帶)之座椅位置。</p> <p>7.1.7.4.2 救護車、醫療車、靈車、露營車(Motor-caravan)之後排座椅，以及載運身心障礙者車輛、消防車、警備車與供軍方使用之車輛之所有座椅。</p> <p><u>7.1.7.4.3 可拆式之後排座椅，以及於任一排具有懸吊之座椅。</u></p> |
| <p>8. Requirements concerning the installation in the vehicle</p> <p>...</p> <p>8.4. Safety-belt reminder equipment</p> <p>...</p> <p>8.4.4. Safety-belt reminder for occupants of rear seat row(s).</p> <p>...</p> <p>8.4.4.2. The visual warning shall indicate at least all rear seating positions to allow the driver to identify, while facing forward as</p> | <p>8. Requirements concerning the installation in the vehicle</p> <p>...</p> <p>8.4. Safety-belt reminder equipment</p> <p>...</p> <p>8.4.4. Safety-belt reminder for occupants of rear seat row(s).</p> <p>...</p> <p>8.4.4.2. The visual warning shall indicate at least all rear seating positions to allow the driver to identify, while facing forward as</p> | <p>7.1.7 安全帶提醒裝置安裝規定</p> <p>...</p> <p>7.1.7.7.2.4 後排座椅之安全帶提醒裝置</p> <p>...</p> <p>7.1.7.7.2.4.2 視覺警示應至少指示所有後排座椅位置，使駕駛乘坐於駕駛座面向前方時，可識別出未被繫</p> | <p>7.1.7 安全帶提醒裝置安裝規定</p> <p>...</p> <p>7.1.7.7.2.4 後排座椅之安全帶提醒裝置</p> <p>...</p> <p>7.1.7.7.2.4.2 視覺警示應至少指示所有後排座椅位置，使駕駛乘坐於駕駛座面向前方時，可識別出未被繫</p> |

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| seated on the driver seat, any seating position in which the safety-belt is unfastened. For vehicles that have information on the occupancy status of the rear seats, the visual warning does not need to indicate unfastened safety-belts for unoccupied seating positions. For seats, which can be fixed to different designated seating positions within the vehicle (e.g. floor rail mounted), the visual warning shall at least indicate when any rear safety-belt is unfastened. | seated on the driver seat, any seating position in which the safety-belt is unfastened. For vehicles that have information on the occupancy status of the rear seats, the visual warning does not need to indicate unfastened safety-belts for unoccupied seating positions. For seats, which can be fixed to different designated seating positions within the vehicle (e.g. floor rail mounted), the visual warning shall at least indicate when any rear safety-belt is unfastened. | 上安全帶之任一座椅位置。對於具有後排座椅乘坐狀態資訊之車輛，視覺警示無須指示未乘坐座椅位置之未被繫上安全帶狀態。對於可固定於車輛內不同指定座椅位置之座椅(如安裝於地板上之軌道)，當任何後排安全帶被解開時，應至少 <u>顯示視覺警示</u> 。 | 上安全帶之任一座椅位置。對於具有後排座椅乘坐狀態資訊之車輛，視覺警示無須指示未乘坐座椅位置之未被繫上安全帶狀態。對於可固定於車輛內不同指定座椅位置之座椅(如安裝於地板上之軌道)，當任何後排安全帶被解開時， <u>視覺警示</u> 應至少 <u>指示</u> 。 (1110907 基準草案版本) |
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UN R46 DEVICES FOR INDIRECT VISION 間接視野裝置

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| 04-S6 | | | |
| 16.1.1.3 Overlay requirements within the minimum required field of vision Overlays shall display only safety-related rearward vision information. Only temporary overlays are allowed. All overlays shall be considered as an obstruction regardless of their transparency. Each overlay shall not exceed 2.5 per cent of the required field of view displayed surface of the corresponding class. The total surface of all obstructions shall | 16.1.1.3. Overlay requirements within the minimum required field of vision Overlays shall display only rearward driving-related visual information. Only temporary overlays are allowed. All overlays shall be considered as an obstruction regardless of their transparency. Each overlay shall not exceed 2.5 per cent of the required field of view displayed surface of the corresponding class. The total surface of all obstructions shall not | 二十三之二、間接視野裝置安裝規定 8.1.1.3 最小要求視野畫面內之顯像共用區(Overlay)規範 顯像共用區範圍內僅可顯示 <u>與後方安全相關</u> 之視覺資訊。 僅允許暫時之顯像共用區。 不論其透明與否，所有顯像共用區應視為視野遮蔽區。 顯像共用區不應超過該視野類型顯 | 二十三之二、間接視野裝置安裝規定 8.1.1.3 最小要求視野畫面內之顯像共用區(Overlay)規範 顯像共用區範圍內僅可顯示 <u>朝後方行駛有關</u> 之視覺資訊。 僅允許暫時之顯像共用區。 不論其透明與否，所有顯像共用區應視為視野遮蔽區。 顯像共用區不應超過該視野類型顯 |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| <p>not exceed the provision of paragraph 15.2.4.9.1. or 15.2.4.9.2. at the same time.</p> <p>Overlay and any other obstruction surface shall be determined (for example on screenshots) taking into account the worst case(s).</p> <p>...</p> | <p>exceed the provision of paragraph 15.2.4.9.1. or 15.2.4.9.2. at the same time.</p> <p>Overlay and any other obstruction surface shall be determined (for example on screenshots) taking into account the worst case(s).</p> <p>...</p> | <p>像視野畫面之百分之二・五。</p> <p>同一時間內所有遮蔽之視野總面積不應超過本項之 7.10.1 或 7.10.2 規定。</p> <p>應以最嚴苛情況(例如螢幕截圖)確認顯像共用區及任何其他遮蔽視野表面。</p> <p>...</p> | <p>像視野畫面之百分之二・五。</p> <p>同一時間內所有遮蔽之視野總面積不應超過本項之 7.10.1 或 7.10.2 規定。</p> <p>應以最嚴苛情況(例如螢幕截圖)確認顯像共用區及任何其他遮蔽視野表面。</p> <p>...</p> |
| <p>Annex 3</p> <p>Communication</p> <p>(Maximum format: A4 (210 x 297 mm))</p>  <p>Concerning:2</p> <p>Approval granted</p> <p>Approval extended</p> <p>Approval refused</p> <p>Approval withdrawn</p> <p>Production definitively discontinued of a type of device for indirect vision pursuant to Regulation No. 46</p> <p>Approval No.</p> <p>Extension No.</p> <p>1.Trade name or mark of device:</p> <p>2.Manufacturer's name for the type of</p> | <p>Annex 3</p> <p>Communication</p> <p>(Maximum format: A4 (210 x 297 mm))</p>  <p>Concerning:2</p> <p>Approval granted</p> <p>Approval extended</p> <p>Approval refused</p> <p>Approval withdrawn</p> <p>Production definitively discontinued of a type of device for indirect vision pursuant to Regulation No. 46</p> <p>Approval No.</p> <p>Extension No.</p> <p>1.Trade name or mark of device:</p> <p>2.Manufacturer's name for the type of device:</p> | <p>二十七之一、間接視野裝置(草案)</p> <p>...</p> <p>【溝通文件部分之修訂不影響國內基準】</p> | <p>二十七之一、間接視野裝置(草案)</p> <p>...</p> |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| <p>device:</p> <p>3. Manufacturer's name and address:</p> <p>4. If applicable, name and address of manufacturer's representative:</p> <p>5. Submitted for approval on:</p> <p>6. Technical Service responsible for conducting approval tests:</p> <p>7. Date of report issued by that Service</p> <p>8. Number of report issued by that Service</p> <p>9. Brief description</p> <p>Identification of the device: mirror, camera/monitor, other devices for indirect vision of Classes I, II, III, IV, V, VI, VII²</p> <p>Symbol</p> <p style="text-align: center;">Δ <u>2m</u></p> <p>as defined in paragraph 6.3.1.1. of this Regulation: yes/no²</p> <p>10. Position of the approval mark:</p> <p>11. Reason(s) for extension (if applicable):</p> <p>12. Approval granted/refused/extended/withdrawn:²</p> <p>13. Place:</p> <p>14. Date:</p> <p>15. Signature:</p> <p>16. The list of documents deposited with the Type Approval Authority which has granted approval is annexed to this communication and may be obtained on request.</p> | <p>3. Manufacturer's name and address:</p> <p>4. If applicable, name and address of manufacturer's representative:</p> <p>5. Submitted for approval on:</p> <p>6. Technical Service responsible for conducting approval tests:</p> <p>7. Date of report issued by that Service</p> <p>8. Number of report issued by that Service</p> <p>9. Brief description</p> <p>Identification of the device: mirror, camera/monitor, other device²</p> <p>Device for indirect vision of Classes I, II, III, IV, V, VI, S²</p> <p>Symbol</p> <p style="text-align: center;">Δ <u>2m</u></p> <p>as defined in paragraph 6.3.1.1. of this Regulation: yes/no²</p> <p>10. Position of the approval mark:</p> <p>11. Reason(s) for extension (if applicable):</p> <p>12. Approval granted/refused/extended/withdrawn:²</p> <p>13. Place:</p> <p>14. Date:</p> <p>15. Signature:</p> <p>16. The list of documents deposited with the Type Approval Authority which has granted approval is annexed to this communication and may be obtained on request.</p> <p>² Strike out what does not apply.</p> | | |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| ² Strike out what does not apply. | | | |

UN R46 DEVICES FOR INDIRECT VISION 間接視野裝置

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| 04-S7 | | | |
| 13. Application for approval ... 13.5. The CMS shall be provided by the applicant with the following documents: (a) Technical specification of the CMS; (b) Operator's manual; (c) Documentation referred to in Annex 12, paragraph 2.3.; (d) Documentation referred to in paragraph 16.1.1.1.1., if applicable. ... Annex 2 Information document for type approval of a vehicle with respect to the installation of devices for indirect vision ... 12. Bodywork 12.1. Devices for indirect vision 12.1.1. Mirrors 12.1.1.1. Drawing(s) showing the position of the mirror relative to the vehicle structure: 12.1.1.2. Details of the method of attachment | 13. Application for approval ... 13.5. The CMS shall be provided by the applicant with the following documents: (a) Technical specification of the CMS; (b) Operator's manual; (c) Documentation referred to in Annex 12, paragraph 2.3.; ... Annex 2 Information document for type approval of a vehicle with respect to the installation of devices for indirect vision ... 12. Bodywork 12.1. Devices for indirect vision 12.1.1. Mirrors 12.1.1.1. Drawing(s) showing the position of the mirror relative to the vehicle structure: 12.1.1.2. Details of the method of attachment | 二十三之二、間接視野裝置安裝規定 ... 【溝通文件部分之修訂不影響國內基準】 ... | 二十三之二、間接視野裝置安裝規定 ... |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
|---|---|------------|----------|
| <p>including that part of the vehicle structure to which it is attached:</p> <p>12.1.1.3. Optional equipment which may affect the rearward field of vision:</p> <p>12.1.1.4. A brief description of the electronic components (if any) of the adjustment device</p> <p>12.1.2. Devices for indirect vision other than mirrors:</p> <p>12.1.2.1. Sufficiently detailed drawings with the installation instructions:</p> <p>12.1.2.2. In the case of camera-monitor system of Classes I to IV:</p> <p>12.1.2.2.1. Drawing(s)/photograph(s) showing the position of the camera(s) relative to the vehicle structure:</p> <p>12.1.2.2.2. Drawing(s)/photograph(s) showing the arrangement of the monitor(s) including surrounding interior parts:</p> <p>12.1.2.2.3. Drawing(s)/photograph(s) showing the drivers view onto the monitor(s):</p> <p>12.1.2.2.4. Drawing(s)/photograph(s) showing the setup and monitor image of the required field of view:</p> <p>12.1.2.2.5. Details of the method of attachment of the camera-monitor device(s) including that part of the vehicle structure to which it is attached:</p> <p>12.1.2.2.6. Optional equipment which may</p> | <p>including that part of the vehicle structure to which it is attached:</p> <p>12.1.1.3. Optional equipment which may affect the rearward field of vision:</p> <p>12.1.1.4. A brief description of the electronic components (if any) of the adjustment device</p> <p>12.1.2. Devices for indirect vision other than mirrors:</p> <p>12.1.2.1. Sufficiently detailed drawings with the installation instructions:</p> <p>12.1.2.2. In the case of camera-monitor system of Classes I to IV:</p> <p>12.1.2.2.1. Drawing(s)/photograph(s) showing the position of the camera(s) relative to the vehicle structure:</p> <p>12.1.2.2.2. Drawing(s)/photograph(s) showing the arrangement of the monitor(s) including surrounding interior parts:</p> <p>12.1.2.2.3. Drawing(s)/photograph(s) showing the drivers view onto the monitor(s):</p> <p>12.1.2.2.4. Drawing(s)/photograph(s) showing the setup and monitor image of the required field of view:</p> <p>12.1.2.2.5. Details of the method of attachment of the camera-monitor device(s) including that part of the vehicle structure to which it is attached:</p> <p>12.1.2.2.6. Optional equipment which may</p> | | |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| <p>affect the rearward field of vision:</p> <p>12.1.2.2.7. A brief description of the electronic components (if any) of the adjustment device: .</p> <p>12.1.2.2.8. A technical specification and operator's manual of the camera-monitor system according to ISO 16505:2015:</p> <p>12.1.2.2.9. Documentation referred to in paragraph 16.1.1.1.1., if applicable:</p> | <p>affect the rearward field of vision:</p> <p>12.1.2.2.7. A brief description of the electronic components (if any) of the adjustment device: .</p> <p>12.1.2.2.8. A technical specification and operator's manual of the camera-monitor system according to ISO 16505:2015:</p> | | |
| <p>15.2. Devices for indirect vision</p> <p>...</p> <p>15.2.1.1.2. In the case a camera-monitor system is used for rendering (the) field(s) of vision, the relevant field(s) of vision shall be permanently visible to the driver when the ignition is on or the vehicle master control switch is activated (whichever is applicable) and not used for other information. However, when the vehicle is moving forward at a speed above 10 km/h or backwards, the monitor or the part of the monitor intended for rendering the Class VI field of vision may be used for other information. Multiple images may be used or displayed provided that the monitor has been approved in this mode.</p> | <p>15.2. Devices for indirect vision</p> <p>...</p> <p>15.2.1.1.2. In the case a camera-monitor system is used for rendering (the) field(s) of vision, the relevant field(s) of vision shall be permanently visible to the driver when the ignition is on or the vehicle master control switch is activated (whichever is applicable). However, when the vehicle is moving forward at a speed above 10 km/h or backwards, the monitor or the part of the monitor intended for rendering the Class VI field of vision may be used for other information. Multiple images may be used or displayed provided that the monitor has been approved in this mode.</p> | <p>4. 間接視野裝置安裝數量：</p> <p>...</p> <p>4.2 攝影機-顯示器系統是用以顯示視野區域，當點火開關處於" ON "的位置或車輛主要控制開關作動時(視情況而定)，其相關視覺區域應永久顯示提供駕駛，<u>且不應顯示其他資訊</u>。當車輛向前行駛速度逾每小時<u>十</u>公里時，或其倒車行駛時，顯示器或可用呈現 VI 類視野區域之顯示器部分可供顯示其他資訊。此顯示器之使用模式應經認證後，方可使用或顯示多重影像 (Multiple images)。</p> | <p>4. 間接視野裝置安裝數量：</p> <p>...</p> <p>4.2 攝影機-顯示器系統是用以顯示視野區域，當點火開關處於" ON "的位置或車輛主要控制開關作動時(視情況而定)，其相關視覺區域應永久顯示提供駕駛。當車輛向前行駛速度逾每小時<u>一〇</u>公里時，或其倒車行駛時，顯示器或可用呈現 VI 類視野區域之顯示器部分可供顯示其他資訊。此顯示器之使用模式應經認證後，方可使用或顯示多重影像(Multiple images)。</p> |
| <p>16. Requirements for devices for indirect vision other than mirrors</p> <p>...</p> <p>16.1.1.1. Default view</p> | <p>16. Requirements for devices for indirect vision other than mirrors</p> <p>...</p> <p>16.1.1.1. Default view</p> | <p>8. I至IV類攝影機-顯示器裝置</p> <p>...</p> <p>8.1.1.1 預設視野</p> | <p>8. I至IV類攝影機-顯示器裝置</p> <p>...</p> <p>8.1.1.1 預設視野</p> |

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| <p>In default view the CMS shall show the field of view at least as defined in paragraph 15.2.4., with at least the required magnification and resolution as defined in paragraph 16.1.3.</p> <p>In the case of mirror and CMS dual function system of Class I, the CMS mode shall beset by the driver. Activation and deactivation device shall be located directly on the mirror and CMS dual function system.</p> <p>...</p> <p>16.1.1.1.1.Temporarily modified view</p> <p>To enable an improved view in special manoeuvres (e.g. where in the case of conventional mirrors the field of view is usually changed by the driver moving their head to achieve incident angle to the mirror), it shall be permitted to change temporarily the field of view, so that the requirements laid down in paragraphs 15.2.4. (field of vision) and 16.1.3. (magnification and resolution) may not be fulfilled during this temporarily modified view.</p> <p>The operation of this function shall be intuitive to the driver and not cause additional safety risks such as additional blind spots. In the case of articulated vehicles, this includes an adaptation of the modified view to cover the full length of the</p> | <p>In default view the CMS shall show the field of view at least as defined in paragraph 15.2.4., with at least the required magnification and resolution as defined in paragraph 16.1.3.</p> <p>In the case of mirror and CMS dual function system of Class I, the CMS mode shall beset by the driver. Activation and deactivation device shall be located directly on the mirror and CMS dual function system.</p> | <p>攝影機-顯示器系統預設視野，應至少顯示本項規定7之視野；應至少符合本項規定8.1.3 之放大倍率及解像度。</p> <p>具I類視鏡及攝影機-顯示器雙重功能系統者，其攝影機-顯示器系統模式設定應由駕駛設定。啟用與關閉裝置應直接位於該視鏡及攝影機-顯示器雙重功能系統上。</p> <p>...</p> <p><u>8.1.1.1.1暫時調整視野</u></p> <p><u>為使車輛於特殊操作時改善視野(如：使用視鏡時，通常藉由駕駛移動頭部以透過與視鏡之入射角來取得改變後之視野範圍)，應允許可暫時地改變視野範圍，故於暫時調整視野期間得免符合規定7(車輛視野)及8.1.3(放大倍率及解像度)之規定。</u></p> <p><u>駕駛應能憑直覺(Intuitive)操作此功能且不造成額外之安全風險(如：額外之盲點)，對於聯結車輛，此包括一種可匹配調整視野以涵蓋車輛組合之全長，此功能應於車輛操作完成後停止且攝影機-顯示器系</u></p> | <p>攝影機-顯示器系統預設視野，應至少顯示本項規定7之視野；應至少符合本項規定8.1.3 之放大倍率及解像度。</p> <p>具I類視鏡及攝影機-顯示器雙重功能系統者，其攝影機-顯示器系統模式設定應由駕駛設定。啟用與關閉裝置應直接位於該視鏡及攝影機-顯示器雙重功能系統上。</p> |

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| <p>vehicle combination. The operation of the function shall cease, when the maneuver has been completed and the CMS shall return to the default view.</p> <p>It shall be indicated to the driver, that a temporarily modified view is displayed. At any time, the driver shall be able to deactivate the function. The operator's manual shall inform the driver accordingly.</p> <p>The vehicle manufacturer shall demonstrate the improvement of the view by an analysis to the satisfaction of the Technical Service and the Type Approval Authority</p> | | <p><u>統應回復至預設視野。</u></p> <p><u>應通知駕駛暫時調整視野位於顯示狀態，駕駛應能於任何時刻解除此功能。相關詳細資訊應詳載於車主手冊以提醒駕駛。</u></p> <p><u>申請者應向檢測機構透過分析展演改善後之視野以獲得其同意。</u></p> | |

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| <p>16.1.5 Monitor inside the vehicle</p> <p>...</p> <p>16.1.5.2. The arrangement of the monitor(s) inside the vehicle shall be convenient to the driver.</p> <p>If the CMS shows more than one field of vision on the same display, non-continuous images shall be clearly separated from each other. If the field of vision from different classes of devices for indirect vision are shown on the monitor(s) without hiding any part of the required field of vision, a</p> | <p>16.1.5 Monitor inside the vehicle</p> <p>...</p> <p>16.1.5.2. The arrangement of the monitor(s) inside the vehicle shall be convenient to the driver.</p> <p>If the CMS shows more than one field of vision on one display, non-continuous images shall be clearly separated from each other. Provided that the required field of vision of different classes of devices for indirect vision are shown on the monitor(s) without hiding any part of the required field</p> | <p>二十三之二、間接視野裝置安裝規定</p> <p>...</p> <p>8.1.5 車輛內部之顯示器</p> <p>...</p> <p>8.1.5.2 車輛內部之各螢幕裝置位置應利於駕駛方便操作。</p> <p>...</p> <p>若攝影機-顯示器系統之<u>同</u>一個顯示幕顯示超過一種視野類型畫面，非連續之圖像應可彼此清楚地區別。若不同視野類型<u>之</u>間接視野裝置要求視野顯示於顯示器<u>上</u>，<u>且</u>未隱藏<u>其所</u>要求視野<u>之</u>任何部分，<u>則</u>允</p> | <p>二十三之二、間接視野裝置安裝規定</p> <p>...</p> <p>8.1.5 車輛內部之顯示器</p> <p>...</p> <p>8.1.5.2 車輛內部之各螢幕裝置位置應利於駕駛方便操作。</p> <p>...</p> <p>若攝影機-顯示器系統之一個顯示幕顯示超過一種視野類型畫面，非連續之圖像應可彼此清楚地區別。若<u>為</u>不同視野類型間接視野裝置要求<u>之</u>視野顯示於顯示器，<u>則於</u>未隱藏<u>各視野類型</u>要求視野任何部分</p> |

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| combined continuous image is allowed. In this case, a clear separation of the different fields of vision is not necessary and any changes in magnification may be indicated to the driver using indication lines. Indication lines shall not hide information. | of vision, a combined continuous image without clear separation is allowed. | 許連續圖像組合， <u>於此情況下，不必明確區別不同之視野且可使用標示線(Indication line)告知駕駛任何放大倍率之改變。標示線不應隱藏資訊。</u> | 之下 ，允許 <u>無明確區別之</u> 連續圖像組合。 |

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| 2. Definitions For the purposes of this Regulation: ... 2.1.1.7. "Spherical surface" means a convex surface, which has, in both horizontal and vertical direction, measured radii of curvature compliant with the provisions given in paragraphs 6.1.2.2.2 and 6.1.2.2.4. 參考資料 6.1.2.2.2. Differences between the radii of curvature of mirrors 6.1.2.2.2.1. The difference between r_i or r'_i , and r_p at each reference point shall not exceed 0.15 r . 6.1.2.2.2.2. The difference between any of the radii of curvature (r_{p1} , r_{p2} , and r_{p3}) and r | 2. Definitions For the purposes of this Regulation: ... 2.1.1.7. "Spherical surface" means a surface, which has a constant and equal radius in all directions. 6.2.6.2 每一參考點 r_i 、 r'_i 與 r_p 之差異： 6.2.6.2.1 於 r 不超過三 0 0 0 公釐時，其差異不得超過 $0 \cdot 15 r$ 。 6.2.6.2.2 於 r 大於三 0 0 0 公釐時，其差異不得超過 $0 \cdot 25 r$ 。 6.2.6.3 任一曲率半徑 r_p 與 r 之差異： | 二十七、間接視野裝置 二十七之一、間接視野裝置 ... 2.名詞釋義： ... 2.13 球面(Spherical surface)：係指 <u>其在水平及垂直方向上測量而得之曲率半徑符合規定6.2.1~6.2.5 及 6.2.6.2~6.2.6.3.2 之凸面表面。</u> 【原文6.1.2.2.2及6.1.2.2.4對應基準6.2.6.2~6.2.6.3.2及6.2.1~6.2.5之規定】 | 二十七、間接視野裝置 二十七之一、間接視野裝置 ... 2.名詞釋義： ... 2.13 球面(Spherical surface)：係指 <u>各方向半徑為常數且相等的表面。</u> |

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| <p>shall not exceed 0.15 r.</p> <p>6.1.2.2.2.3. When r is not less than 3,000 mm, the value of 0.15 r quoted in paragraphs 6.1.2.2.2.1. and 6.1.2.2.2.2. above is replaced by 0.25 r.</p> <p>6.1.2.2.4. Value of "r" for spherical mirrors shall not be less than:</p> <p>6.1.2.2.4.1. 1,200 mm for rear-view mirrors (Class I);</p> <p>6.1.2.2.4.2. 1,200 mm for Class II and III main rear-view mirrors;</p> <p>6.1.2.2.4.3. 300 mm for "wide-angle" mirrors (Class IV) and "close-proximity" mirrors (Class V);</p> <p>6.1.2.2.4.4. 200 mm for front mirrors (Class VI).</p> <p>6.1.2.2.4.5. 1,000 mm or more than 1,500 mm for Class VII main rear-view mirrors.</p> <p>2.1.1.8. "Aspherical surface" means a convex surface, which may have variable radii of curvature both in the horizontal and vertical direction.</p> <p>2.1.1.9. "Aspherical mirror" means a mirror composed of a spherical and an aspherical part, defined in 2.1.1.7 and 2.1.1.8 respectively, in which the transition of the reflecting surface from the spherical to the aspherical part has to be marked. As an</p> | <p>6.2.6.3.1 於 r 不超過三 0 0 0 公釐時，其差異不得超過 0 · 一五 r 。</p> <p>6.2.6.3.2 於 r 大於三 0 0 0 公釐時，其差異不得超過 0 · 二五 r 。</p> <p>6.2 M及N類車輛視鏡：</p> <p>6.2.1 I類後方視野視鏡其反射面之曲率半徑 $r \geq 1200$ 公釐。</p> <p>6.2.2 II類及III類主要後方視野視鏡其反射面之曲率半徑 $r \geq 1200$ 公釐。</p> <p>6.2.3 IV類廣角視野視鏡和V類近側視野視鏡其反射面之曲率半徑 $r \geq 300$ 公釐。</p> <p>6.2.4 VI類車前視野視鏡其反射面之曲率半徑 $r \geq 200$ 公釐。</p> <p>6.2.5 VII類主要後方視野視鏡其反射面之曲率半徑 r 於一 0 0 0 公釐及一五 0 0 公釐之間。</p> <p>2.1.1.8. "Aspherical surface" means a surface, which has only in one plane a constant radius.</p> <p>2.1.1.9. "Aspherical mirror" means a mirror composed of a spherical and an aspherical part, in which the transition of the reflecting surface from the spherical to the aspherical part has to be marked. The curvature of the</p> | <p>2.14 非球面(Aspherical surface)：係指 <u>在水平及垂直方向皆具有可變曲率半徑之凸面表面。</u></p> <p>2.15 非球面視鏡(Aspherical mirror)：係指由球面及非球面部件所組成之視鏡，<u>分別依照2.13及2.14之定義</u>，且反射面在球面至非球面部件之轉變處應有標示。<u>例如：反射視鏡可在x/y 座標系統中定義</u>，主軸</p> | <p>2.14 非球面(Aspherical surface)：係指在一個平面僅有一個固定半徑的表面。</p> <p>2.15 非球面視鏡(Aspherical mirror)：係指由球面及非球面部件所組成之視鏡，且反射面在球面至非球面部件之轉變處應有標示。<u>在x/y 座標系統中，反射視鏡之主軸曲率與其</u>主要半球形半徑之關係式如下：</p> |

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| <p>example, the curvature of the main axis of the mirrors may be defined in the x/y coordinate system defined by the radius of the spherical primary calotte with:</p> $y = R - \sqrt{(R^2 - x^2)} + k(x - a)^3$ <p>Where: R: nominal radius in the spherical part k: constant for the change of curvature a: constant for the spherical size of the spherical primary calotte</p> | <p>main axis of the mirror is defined in the x/y coordinate system defined by the radius of the spherical primary calotte with:</p> $y = R - \sqrt{(R^2 - x^2)} + k(x - a)^3$ <p>Where: R: nominal radius in the spherical part k: constant for the change of curvature a: constant for the spherical size of the spherical primary calotte</p> | <p>曲率與其主要半球形半徑之關係式如下：</p> $y = R - \sqrt{(R^2 - x^2)} + k(x - a)^3$ <p>R:球面部件之標稱半徑。 k:曲率變化常數 a:主要半球形所形成之球面尺寸常數</p> | $y = R - \sqrt{(R^2 - x^2)} + k(x - a)^3$ <p>R:球面部件之標稱半徑。 k:曲率變化常數 a:主要半球形所形成之球面尺寸常數</p> |
| <p>6.1.2.2. Reflecting surface and coefficients of reflection</p> <p>...</p> <p>6.1.2.2.1. The reflecting surface of a mirror shall be either flat or convex. Exterior mirrors may be equipped with an additional aspherical part provided that the main mirror fulfils the requirements of the indirect field of vision.</p> | <p>6.1.2.2. Reflecting surface and coefficients of reflection</p> <p>...</p> <p>6.1.2.2.1. The reflecting surface of a mirror shall be either flat or spherically convex. Exterior mirrors may be equipped with an additional aspherical part provided that the main mirror fulfils the requirements of the indirect field of vision.</p> | <p>6.反射面曲率半徑(r)值：</p> <p>6.1 視鏡反射面必須為平面或<u>凸面 (Convex)</u>。如為車外視鏡，在其主要視鏡符合間接視野要求之條件下，則可額外裝設非球面元件。</p> | <p>6.反射面曲率半徑(r)值：</p> <p>6.1 視鏡反射面必須為平面或<u>凸面體 (Spherically convex)</u>。如為車外視鏡，在其主要視鏡符合間接視野要求之條件下，則可額外裝設非球面元件。</p> |

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| <p>II. Installation of devices for indirect vision</p> <p>...</p> | <p>II. Installation of devices for indirect vision</p> <p>...</p> | <p>二十三之二、間接視野裝置安裝規定</p> <p>1. 實施時間及適用範圍：</p> <p>...</p> <p>1.3 除大客車及幼童專用車以外之車輛，申請少量車型安全審驗或逐車少量車型安全審驗者，得免符合本</p> | <p>二十三之二、間接視野裝置安裝規定</p> <p>1. 實施時間及適用範圍：</p> <p>...</p> <p>1.3 除大客車及幼童專用車以外之車輛，申請少量車型安全審驗或逐車少量車型安全審驗者，得免符合本</p> |

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| <p>The purpose of this paragraph is to specify the requirements for documentation and verification for CMS for indirect vision of Classes I to IV to replace mandatory rearview mirrors for road vehicles.</p> <p>"The System", referred to herein, is the one for which type approval is being sought.</p> <p>This paragraph 2. does not specify the performance criteria for "The System" but covers the methodology applied to the design process and the information which shall be disclosed to the Technical Service, for type approval purposes.</p> <p>This information shall show that "The System" respects, under normal and fault conditions, all the appropriate performance requirements specified elsewhere in this Regulation.</p> <p>2.2. Definitions</p> <p>2.2.1. Camera Monitor System (CMS)</p> <p>A CMS is used in road vehicles to present the required outside information of a specific field of view to the driver. It replaces a conventional legally prescribed mirror system on the vehicle by means of electronic image capture and display systems.</p> <p>It consists of a camera that is usually installed at the bodywork of a vehicle and a monitor that is usually placed inside the vehicle.</p> | <p>The purpose of this paragraph is to specify the requirements for documentation and verification for CMS for indirect vision of Classes I to IV to replace mandatory rearview mirrors for road vehicles.</p> <p>"The System", referred to herein, is the one for which type approval is being sought.</p> <p>This paragraph 2. does not specify the performance criteria for "The System" but covers the methodology applied to the design process and the information which shall be disclosed to the Technical Service, for type approval purposes.</p> <p>This information shall show that "The System" respects, under normal and fault conditions, all the appropriate performance requirements specified elsewhere in this Regulation.</p> <p>2.2. Definitions</p> <p>2.2.1. Camera Monitor System (CMS)</p> <p>A CMS is used in road vehicles to present the required outside information of a specific field of view to the driver. It replaces a conventional legally prescribed mirror system on the vehicle by means of electronic image capture and display systems.</p> <p>It consists of a camera that is usually installed at the bodywork of a vehicle and a monitor that is usually placed inside the vehicle.</p> | <p><u>此項目的為針對替代強制裝設視鏡之I至IV類間接視野之攝影機-顯示器系統，規範所應檢附文件和符合之驗證要求。</u></p> <p><u>此處所提系統(System)，係指欲申請型式認證之系統。</u></p> <p><u>本項並非規定系統(The System)性能準則，惟係規範應提供設計過程及資料予檢測機構以進行檢驗。</u></p> <p><u>該資料應包含該系統於正常和故障情況，符合所有對應本項規定內其他規範之性能要求。</u></p> <p><u>11.2 名詞釋義：</u></p> <p><u>11.2.1 攝影機-顯示器系統(CMS)</u></p> <p><u>一部攝影機-顯示器系統在道路車輛使用以提供駕駛所需外面資訊具體視野。</u></p> <p><u>藉由電子影像捕捉和顯示系統的裝置代替在車輛上傳統法規規定視鏡系統。</u></p> <p><u>由一部通常安裝於車輛車身之攝影機，及一部通常放置在車輛內之顯示器所構成。</u></p> | <p>此項目的為針對替代強制裝設視鏡之I至IV類間接視野之攝影機-顯示器系統，規範所應檢附文件和符合之驗證要求。</p> <p>此處所提系統(System)，係指欲申請型式認證之系統。</p> <p>本基準12.2，並非規定系統(The System)性能準則，惟係規範應提供設計過程及資料予檢測機構以進行檢驗。</p> <p>該資料應包含該系統於正常和故障情況，符合所有對應本項規定內其他規範之性能要求。</p> <p>12.2.2 名詞釋義：</p> <p>12.2.2.1 攝影機-顯示器系統(CMS)</p> <p>一部攝影機-顯示器系統在道路車輛使用以提供駕駛所需外面資訊具體視野。</p> <p>藉由電子影像捕捉和顯示系統的裝置代替在車輛上傳統法規規定視鏡系統。</p> <p>由一部通常安裝於車輛車身之攝影機，及一部通常放置在車輛內之顯示器所構成。</p> |

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| 2.2.2. Camera A camera is a device to capture colour images of a specific field of view. It mainly consists of two relevant items: imager and lens. | 2.2.2. Camera A camera is a device to capture colour images of a specific field of view. It mainly consists of two relevant items: imager and lens. | <u>11.2.2 攝影機(Camera)</u> <u>攝影機係捕捉特定視野彩色影像之裝置。主要係由成像元件和鏡頭所構成。</u> | 12.2.2.2 攝影機(Camera) 攝影機係捕捉特定視野彩色影像之裝置。主要係由成像元件和鏡頭所構成。 |
| 2.2.3. Monitor A monitor is a device for displaying images. It either consists of a matrix of active areas that radiate light of different wavelengths or is a (usually diffuse) reflector that is illuminated in different wavelengths and in a matrix of specific points by a projector. | 2.2.3. Monitor A monitor is a device for displaying images. It either consists of a matrix of active areas that radiate light of different wavelengths or is a (usually diffuse) reflector that is illuminated in different wavelengths and in a matrix of specific points by a projector. | <u>11.2.3 顯示器(Monitor)</u> <u>顯示器係用於顯示影像之裝置。</u> <u>係由不同波長輻射之活動區域矩陣組成，或者一種承接不同波長照射且為特定投影點矩陣之反射器（通常是漫射）。</u> | 12.2.2.3 顯示器(Monitor) 顯示器係用於顯示影像之裝置。 係由不同波長輻射之活動區域矩陣組成，或者一種承接不同波長照射且為特定投影點矩陣之反射器（通常是漫射）。 |
| 2.2.4. Control unit A control unit is a component which controls communication and coordination between electronic components, e.g. a camera and a monitor. | 2.2.4. Control unit A control unit is a component which controls communication and coordination between electronic components, e.g. a camera and a monitor. | <u>11.2.4 控制單元(Control unit):控制單元是控制微電子組件(例如攝影機和顯示器)之間溝通和協調之組件。</u> | 12.2.2.4 控制單元(Control unit):控制單元是控制微電子組件(例如攝影機和顯示器)之間溝通和協調之組件。 |
| 2.2.5. Safety concept A safety concept is a description of the measures designed into the system, for example within the electronic units, so as to address system integrity and thereby ensure safe operation even in the event of a system or electrical failure. | 2.2.5. Safety concept A safety concept is a description of the measures designed into the system, for example within the electronic units, so as to address system integrity and thereby ensure safe operation even in the event of a system or electrical failure. | <u>11.2.5 安全概念(Safety concept):安全概念是系統內部設計方法之描述，例如微電子單元內部，藉以確保系統或電氣故障情況下之系統完整性及安全作動。</u> | 12.2.2.5 安全概念(Safety concept):安全概念是系統內部設計方法之描述，例如微電子單元內部，藉以確保系統或電氣故障情況下之系統完整性及安全作動。 |
| 2.2.6. "Boundary of functional operation" "Boundary of functional operation" defines the boundaries of the external physical limits within which the system is able to maintain functionality. | 2.2.6. "Boundary of functional operation" "Boundary of functional operation" defines the boundaries of the external physical limits within which the system is able to maintain functionality. | <u>11.2.6 功能作動之外在限制(Boundary of functional operation):係指系統能夠維持功能之外在實際極限。</u> | 12.2.2.6 功能作動之外在限制(Boundary of functional operation):係指系統能夠維持功能之外在實際極限。 |
| 2.3. Documentation | 2.3. Documentation | <u>11.3 檢附文件</u> | 12.2.3 檢附文件 |
| 2.3.1. The vehicle manufacturer shall provide | 2.3.1. The vehicle manufacturer shall provide | <u>11.3.1 申請者應檢附下列文件:</u> | 12.2.3.1 申請者應檢附下列文件: |

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| <p>the following documentation:</p> <p>(a) A description of the camera monitor system which gives an explanation of the main function of the system, incl. drawings, pictures, block diagrams, etc.</p> <p>(b) A description of the location of the camera and the monitor in the vehicle (system overview).</p> <p>(c) Name of manufacturer of camera, monitor and electronic control units.</p> <p>(d) Type of camera and monitor. Each unit shall be clearly and unambiguously identifiable (e.g. by marking for hardware and marking or software output for software content) to provide corresponding hardware and documentation association.</p> <p>(e) Explanation of the warning strategy and the safety concept, as defined by the manufacturer, covering at least the list of failures of paragraph 2.4.</p> <p>2.3.2. For periodic technical inspections, the documentation shall describe how the current operational status of "The System" can be verified.</p> <p>2.3.3. The limits for the boundary of functional operation (e.g. environmental parameters) shall be stated where appropriate to the system performance.</p> <p>2.3.4. Safety concept of the manufacturer</p> <p>The manufacturer shall provide a statement</p> | <p>the following documentation:</p> <p>(a) A description of the camera monitor system which gives an explanation of the main function of the system, incl. drawings, pictures, block diagrams, etc.</p> <p>(b) A description of the location of the camera and the monitor in the vehicle (system overview).</p> <p>(c) Name of manufacturer of camera, monitor and electronic control units.</p> <p>(d) Type of camera and monitor. Each unit shall be clearly and unambiguously identifiable (e.g. by marking for hardware and marking or software output for software content) to provide corresponding hardware and documentation association.</p> <p>(e) Explanation of the warning strategy and the safety concept, as defined by the manufacturer, covering at least the list of failures of paragraph 2.4.</p> <p>2.3.2. For periodic technical inspections, the documentation shall describe how the current operational status of "The System" can be verified.</p> <p>2.3.3. The limits for the boundary of functional operation (e.g. environmental parameters) shall be stated where appropriate to the system performance.</p> <p>2.3.4. Safety concept of the manufacturer</p> <p>The manufacturer shall provide a statement</p> | <p><u>(a) 攝影機-顯示器系統主要功能描述，其中包含圖示、照片及方塊圖等說明。</u></p> <p><u>(b) 該車輛內之攝影機和顯示器位置描述（系統概要）。</u></p> <p><u>(c) 攝影機、顯示器及微電子控制單元之廠牌。</u></p> <p><u>(d) 攝影機和顯示器之型式系列。應可清晰辨識每個單元（例如，透過硬體標示，及軟體標示或軟體內容輸出），以提供硬體與文件之相對應關聯性。</u></p> <p><u>(e) 申請者宣告之警示策略和安全概念說明，其至少涵蓋11.4 故障清單之規定。</u></p> <p><u>11.3.2 對於定期技術檢查，文件應描述“系統”作動狀態之驗證方式。</u></p> <p><u>11.3.3 應說明系統性能相關之功能作動之外在限制條件（例如環境參數）。</u></p> <p><u>11.3.4 申請者宣告之產品安全概念</u> <u>申請者應提供聲明文件，其說明內容</u></p> | <p>(a) 攝影機-顯示器系統主要功能描述，其中包含圖示、照片及方塊圖等說明。</p> <p>(b) 該車輛內之攝影機和顯示器位置描述（系統概要）。</p> <p>(c) 攝影機、顯示器及微電子控制單元之廠牌。</p> <p>(d) 攝影機和顯示器之型式系列。應可清晰辨識每個單元（例如，透過硬體標示，及軟體標示或軟體內容輸出），以提供硬體與文件之相對應關聯性。</p> <p>(e) 申請者宣告之警示策略和安全概念說明，其至少涵蓋本基準12.2.4 故障清單之規定。</p> <p>12.2.3.2 對於定期技術檢查，文件應描述“系統”作動狀態之驗證方式。</p> <p>12.2.3.3 應說明系統性能相關之功能作動之外在限制條件（例如環境參數）。</p> <p>12.2.3.4 申請者宣告之產品安全概念 申請者應提供聲明文件，其說明內容</p> |

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| <p>which affirms that the strategy chosen allows a safe operation of "The System".</p> <p>In the case of a failure, the driver shall be informed for example by a clear and visible warning signal or message display. When the system is activated, the warning shall be present as long as the fault condition persists.</p> <p>The fault conditions shall be established and maintained by the manufacturer and shall be made open for inspection by the Technical Service at the time of the type approval.</p> <p>2.3.5. The chosen analytical approach(es) shall be established and maintained by the manufacturer and shall be made open for inspection by the Technical Service at the time of the type approval.</p> <p>2.4. List of failures</p> <p>2.4.1. Camera</p> <p>(a) Failure of the camera;</p> <p>(b) Electronic noise, reduced detail resolution;</p> <p>(c) Defocus of the optics, reduced detail resolution.</p> <p>2.4.2. Monitor</p> <p>(a) Failure of monitor display, no image content is displayed;</p> <p>(b) Freeze of displayed monitor content, image content is not refreshed;</p> | <p>which affirms that the strategy chosen allows a safe operation of "The System".</p> <p>In the case of a failure, the driver shall be informed for example by a clear and visible warning signal or message display. When the system is activated, the warning shall be present as long as the fault condition persists.</p> <p>The fault conditions shall be established and maintained by the manufacturer and shall be made open for inspection by the Technical Service at the time of the type approval.</p> <p>2.3.5. The chosen analytical approach(es) shall be established and maintained by the manufacturer and shall be made open for inspection by the Technical Service at the time of the type approval.</p> <p>2.4. List of failures</p> <p>2.4.1. Camera</p> <p>(a) Failure of the camera;</p> <p>(b) Electronic noise, reduced detail resolution;</p> <p>(c) Defocus of the optics, reduced detail resolution.</p> <p>2.4.2. Monitor</p> <p>(a) Failure of monitor display, no image content is displayed;</p> <p>(b) Freeze of displayed monitor content, image content is not refreshed;</p> | <p><u>係確保“系統”的選擇策略允許安全作動。</u></p> <p><u>故障發生之情況下，應告知駕駛，例如透過清晰且可見之警告訊號或訊息顯示。當系統作動，若故障狀態存在，則該警告應持續保留。</u></p> <p><u>申請者應建立與維護故障條件資料，並提供檢測機構進行檢驗。</u></p> <p><u>11.3.5 申請者應建立與維護選定之分析方法資料，並提供檢測機構進行檢驗</u></p> <p><u>11.4 故障清單</u></p> <p><u>11.4.1 攝影機</u></p> <p><u>(a) 攝影機故障</u></p> <p><u>(b) 電子雜訊，可見視標解像度降低</u></p> <p><u>(c) 光學構件失焦(Defocus)，可見視標解像度降低</u></p> <p><u>11.4.2 顯示器</u></p> <p><u>(a) 顯示器顯示故障，無影像顯示；</u></p> <p><u>(b) 顯示器影像凍結，影像無刷新；</u></p> <p><u>(c) 影像放大之形成時間，導致變換</u></p> | <p>係確保“系統”的選擇策略允許安全作動。</p> <p>故障發生之情況下，應告知駕駛，例如透過清晰且可見之警告訊號或訊息顯示。當系統作動，若故障狀態存在，則該警告應持續保留。</p> <p>申請者應建立與維護故障條件資料，並提供檢測機構進行檢驗。</p> <p>12.2.3.5 申請者應建立與維護選定之分析方法資料，並提供檢測機構進行檢驗</p> <p>12.2.4 故障清單</p> <p>12.2.4.1 攝影機</p> <p>(a) 攝影機故障</p> <p>(b) 電子雜訊，可見視標解像度降低</p> <p>(c) 光學構件失焦(Defocus)，可見視標解像度降低</p> <p>12.2.4.2 顯示器</p> <p>(a) 顯示器顯示故障，無影像顯示；</p> <p>(b) 顯示器影像凍結，影像無刷新；</p> <p>(c) 影像放大之形成時間，導致變換</p> |

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| (c) Enlarged image formation time, changing image content is blurred. 2.4.3. Control unit (a) Failure of the control unit; (b) Failure in the communication between camera and control unit; (c) Failure in the communication between control unit and monitor. 2.5. Verification 2.5.1. Verification of the performance of the camera monitor system under no-fault and fault conditions shall be conducted against the manufacturer's specification. 2.5.2. The verification of the safety concept of the reaction of the camera monitor system shall, at the discretion of the Type Approval Authority, be verified according to the influence of failures in paragraph 2.4. The verification results shall correspond with the documented summary of the failure analysis in paragraph 2.4., to a level of overall effect such that the safety concept and execution are confirmed as being adequate. | (c) Enlarged image formation time, changing image content is blurred. 2.4.3. Control unit (a) Failure of the control unit; (b) Failure in the communication between camera and control unit; (c) Failure in the communication between control unit and monitor. 2.5. Verification 2.5.1. Verification of the performance of the camera monitor system under no-fault and fault conditions shall be conducted against the manufacturer's specification. 2.5.2. The verification of the safety concept of the reaction of the camera monitor system shall, at the discretion of the Type Approval Authority, be verified according to the influence of failures in paragraph 2.4. The verification results shall correspond with the documented summary of the failure analysis in paragraph 2.4., to a level of overall effect such that the safety concept and execution are confirmed as being adequate. | <u>影像模糊。</u> <u>11.4.3 控制單元</u> <u>(a) 控制單元故障；</u> <u>(b) 攝影機和控制單元之間通訊故障；</u> <u>(c) 顯示器和控制單元之間通訊故障。</u> <u>11.5 驗證</u> <u>11.5.1 應依照申請者提供之規格，針對無故障及故障情況，進行攝影機-顯示器系統性能驗證。</u> <u>11.5.2 應依據11.4之規定，進行攝影機-顯示器系統反應之安全概念驗證。應搭配11.4之故障分析摘要文件列出驗證結果，且其整體效應之水平應確保具適當之安全概念與呈現。</u> | 影像模糊。 12.2.4.3 控制單元 (a) 控制單元故障； (b) 攝影機和控制單元之間通訊故障； (c) 顯示器和控制單元之間通訊故障。 12.2.5 驗證 12.2.5.1 應依照申請者提供之規格，針對無故障及故障情況，進行攝影機-顯示器系統性能驗證。 12.2.5.2 應依據12.2.4之規定，進行攝影機-顯示器系統反應之安全概念驗證。應搭配12.2.4之故障分析摘要文件列出驗證結果，且其整體效應之水平應確保具適當之安全概念與呈現。 |

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| 04-S9 | | | |
| Annex 12 | Annex 12 | 二十七之一、間接視野裝置安裝規定 12. I 至IV 類攝影機-顯示器系統之 | 二十七之一、間接視野裝置安裝規定 12. I 至IV 類攝影機-顯示器系統之 |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| Test methods and safety provisions for CMS of Classes I to IV ... 2. Special requirements to be applied to the safety aspects of camera monitor systems for indirect vision 2.1. General The purpose of this paragraph is to specify the requirements for documentation and verification for CMS for indirect vision of Classes I to IV to replace mandatory rearview mirrors for road vehicles. "The System", referred to herein, is the one for which type approval is being sought. This paragraph 2. does not specify the performance criteria for "The System" but covers the methodology applied to the design process and the information which shall be disclosed to the Technical Service, for type approval purposes. This information shall show that "The System" respects, under normal and fault conditions, all the appropriate performance requirements specified elsewhere in this Regulation. 2.2. Definitions 2.2.1. Camera Monitor System (CMS) A CMS is used in road vehicles to present the required outside information of a specific field of view to the driver. It replaces a | Test methods and safety provisions for CMS of Classes I to IV ... 2. Special requirements to be applied to the safety aspects of camera monitor systems for indirect vision 2.1. General The purpose of this paragraph is to specify the requirements for documentation and verification for CMS for indirect vision of Classes I to IV to replace mandatory rearview mirrors for road vehicles. "The System", referred to herein, is the one for which type approval is being sought. This paragraph 2. does not specify the performance criteria for "The System" but covers the methodology applied to the design process and the information which shall be disclosed to the Technical Service, for type approval purposes. This information shall show that "The System" respects, under normal and fault conditions, all the appropriate performance requirements specified elsewhere in this Regulation. 2.2. Definitions 2.2.1. Camera Monitor System (CMS) A CMS is used in road vehicles to present the required outside information of a specific field of view to the driver. It replaces a | 試驗方法和安全規定 ... | 試驗方法和安全規定 ... <u>12.2 適用於攝影機-顯示器系統間接視野安全方面之特殊要求</u> <u>12.2.1 一般規定</u> <u>此項目的為針對替代強制裝設視鏡之I至IV類間接視野之攝影機-顯示器系統，規範所應檢附文件和符合之驗證要求。</u> <u>此處所提系統(System)，係指欲申請型式認證之系統。</u> <u>本基準12.2，並非規定系統(The System)性能準則，惟係規範應提供設計過程及資料予檢測機構以進行檢驗。</u> <u>該資料應包含該系統於正常和故障情況，符合所有對應本項規定內其他規範之性能要求。</u> <u>12.2.2 名詞釋義：</u> <u>12.2.2.1 攝影機-顯示器系統(CMS)</u> <u>一部攝影機-顯示器系統在道路車輛使用以提供駕駛所需外面資訊具體視野。</u> |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| <p>conventional legally prescribed mirror system on the vehicle by means of electronic image capture and display systems.</p> <p>It consists of a camera that is usually installed at the bodywork of a vehicle and a monitor that is usually placed inside the vehicle.</p> <p>2.2.2. Camera</p> <p>A camera is a device to capture colour images of a specific field of view. It mainly consists of two relevant items: imager and lens.</p> <p>2.2.3. Monitor</p> <p>A monitor is a device for displaying images. It either consists of a matrix of active areas that radiate light of different wavelengths or is a (usually diffuse) reflector that is illuminated in different wavelengths and in a matrix of specific points by a projector.</p> <p>2.2.4. Control unit</p> <p>A control unit is a component which controls communication and coordination between electronic components, e.g. a camera and a monitor.</p> <p>2.2.5. Safety concept</p> <p>A safety concept is a description of the measures designed into the system, for example within the electronic units, so as to address system integrity and thereby ensure safe operation even in the event of a system or electrical failure.</p> | <p>conventional legally prescribed mirror system on the vehicle by means of electronic image capture and display systems.</p> <p>It consists of a camera that is usually installed at the bodywork of a vehicle and a monitor that is usually placed inside the vehicle.</p> <p>2.2.2. Camera</p> <p>A camera is a device to capture colour images of a specific field of view. It mainly consists of two relevant items: imager and lens.</p> <p>2.2.3. Monitor</p> <p>A monitor is a device for displaying images. It either consists of a matrix of active areas that radiate light of different wavelengths or is a (usually diffuse) reflector that is illuminated in different wavelengths and in a matrix of specific points by a projector.</p> <p>2.2.4. Control unit</p> <p>A control unit is a component which controls communication and coordination between electronic components, e.g. a camera and a monitor.</p> <p>2.2.5. Safety concept</p> <p>A safety concept is a description of the measures designed into the system, for example within the electronic units, so as to address system integrity and thereby ensure safe operation even in the event of a system or electrical failure.</p> | | <p><u>藉由電子影像捕捉和顯示系統的裝置代替在車輛上傳統法規規定視鏡系統。</u></p> <p><u>由一部通常安裝於車輛車身之攝影機，及一部通常放置在車輛內之顯示器所構成。</u></p> <p><u>12.2.2.2 攝影機(Camera)</u> <u>攝影機係捕捉特定視野彩色影像之裝置。主要係由成像元件和鏡頭所構成。</u></p> <p><u>12.2.2.3 顯示器(Monitor)</u> <u>顯示器係用於顯示影像之裝置。</u> <u>係由不同波長輻射之活動區域矩陣組成，或者一種承接不同波長照射且為特定投影點矩陣之反射器（通常是漫射）。</u></p> <p><u>12.2.2.4 控制單元(Control unit)：控制單元是控制微電子組件(例如攝影機和顯示器)之間溝通和協調之組件。</u></p> <p><u>12.2.2.5 安全概念(Safety concept)：安全概念是系統內部設計方法之描述，例如微電子單元內部，藉以確保系統或電氣故障情況下之系統完整性及安全作動。</u></p> |

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| 2.2.6. "Boundary of functional operation" "Boundary of functional operation" defines the boundaries of the external physical limits within which the system is able to maintain functionality. | 2.2.6. "Boundary of functional operation" "Boundary of functional operation" defines the boundaries of the external physical limits within which the system is able to maintain functionality. | | <u>12.2.2.6 功能作動之外在限制 (Boundary of functional operation)：</u> <u>係指系統能夠維持功能之外在實際極限。</u> |
| 2.3. Documentation | 2.3. Documentation | | <u>12.2.3 檢附文件</u> |
| 2.3.1. The vehicle manufacturer shall provide the following documentation: | 2.3.1. The vehicle manufacturer shall provide the following documentation: | | <u>12.2.3.1 申請者應檢附下列文件：</u> |
| (a) A description of the camera monitor system which gives an explanation of the main function of the system, incl. drawings, pictures, block diagrams, etc. | (a) A description of the camera monitor system which gives an explanation of the main function of the system, incl. drawings, pictures, block diagrams, etc. | | <u>(a) 攝影機-顯示器系統主要功能描述，其中包含圖示、照片及方塊圖等說明。</u> |
| (b) A description of the location of the camera and the monitor in the vehicle (system overview). | (b) A description of the location of the camera and the monitor in the vehicle (system overview). | | <u>(b) 該車輛內之攝影機和顯示器位置描述（系統概要）。</u> |
| (c) Name of manufacturer of camera, monitor and electronic control units. | (c) Name of manufacturer of camera, monitor and electronic control units. | | <u>(c) 攝影機、顯示器及微電子控制單元之廠牌。</u> |
| (d) Type of camera and monitor. Each unit shall be clearly and unambiguously identifiable (e.g. by marking for hardware and marking or software output for software content) to provide corresponding hardware and documentation association. | (d) Type of camera and monitor. Each unit shall be clearly and unambiguously identifiable (e.g. by marking for hardware and marking or software output for software content) to provide corresponding hardware and documentation association. | | <u>(d) 攝影機和顯示器之型式系列。應可清晰辨識每個單元（例如，透過硬體標示，及軟體標示或軟體內容輸出），以提供硬體與文件之相對應關聯性。</u> |
| (e) Explanation of the warning strategy and the safety concept, as defined by the manufacturer, covering at least the list of failures of paragraph 2.4. | (e) Explanation of the warning strategy and the safety concept, as defined by the manufacturer, covering at least the list of failures of paragraph 2.4. | | <u>(e) 申請者宣告之警示策略和安全概念說明，其至少涵蓋本基準12.2.4故障清單之規定。</u> |
| 2.3.2. For periodic technical inspections, the documentation shall describe how the current operational status of "The System" | 2.3.2. For periodic technical inspections, the documentation shall describe how the current operational status of "The System" | | <u>12.2.3.2 對於定期技術檢查，文件應描述“系統”作動狀態之驗證方式。</u> |

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| <p>can be verified.</p> <p>2.3.3. The limits for the boundary of functional operation (e.g. environmental parameters) shall be stated where appropriate to the system performance.</p> <p>2.3.4. Safety concept of the manufacturer</p> <p>The manufacturer shall provide a statement which affirms that the strategy chosen allows a safe operation of "The System".</p> <p>In the case of a failure, the driver shall be informed for example by a clear and visible warning signal or message display. When the system is activated, the warning shall be present as long as the fault condition persists.</p> <p>The fault conditions shall be established and maintained by the manufacturer and shall be made open for inspection by the Technical Service at the time of the type approval.</p> <p>2.3.5. The chosen analytical approach(es) shall be established and maintained by the manufacturer and shall be made open for inspection by the Technical Service at the time of the type approval.</p> <p>2.4. List of failures</p> <p>2.4.1. Camera</p> <p>(a) Failure of the camera;</p> <p>(b) Electronic noise, reduced detail resolution;</p> | <p>can be verified.</p> <p>2.3.3. The limits for the boundary of functional operation (e.g. environmental parameters) shall be stated where appropriate to the system performance.</p> <p>2.3.4. Safety concept of the manufacturer</p> <p>The manufacturer shall provide a statement which affirms that the strategy chosen allows a safe operation of "The System".</p> <p>In the case of a failure, the driver shall be informed for example by a clear and visible warning signal or message display. When the system is activated, the warning shall be present as long as the fault condition persists.</p> <p>The fault conditions shall be established and maintained by the manufacturer and shall be made open for inspection by the Technical Service at the time of the type approval.</p> <p>2.3.5. The chosen analytical approach(es) shall be established and maintained by the manufacturer and shall be made open for inspection by the Technical Service at the time of the type approval.</p> <p>2.4. List of failures</p> <p>2.4.1. Camera</p> <p>(a) Failure of the camera;</p> <p>(b) Electronic noise, reduced detail resolution;</p> | | <p><u>12.2.3.3 應說明系統性能相關之功能作動之外在限制條件（例如環境參數）。</u></p> <p><u>12.2.3.4 申請者宣告之產品安全概念</u> <u>申請者應提供聲明文件，其說明內容係確保“系統”的選擇策略允許安全作動。</u> <u>故障發生之情況下，應告知駕駛，例如透過清晰且可見之警告訊號或訊息顯示。當系統作動，若故障狀態存在，則該警告應持續保留。</u></p> <p><u>申請者應建立與維護故障條件資料，並提供檢測機構進行檢驗。</u></p> <p><u>12.2.3.5 申請者應建立與維護選定之分析方法資料，並提供檢測機構進行檢驗</u></p> <p><u>12.2.4 故障清單</u> <u>12.2.4.1 攝影機</u> <u>(a) 攝影機故障</u> <u>(b) 電子雜訊，可見視標解像度降低</u> <u>(c) 光學構件失焦(Defocus)，可見視</u></p> |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| (c) Defocus of the optics, reduced detail resolution. 2.4.2. Monitor (a) Failure of monitor display, no image content is displayed; (b) Freeze of displayed monitor content, image content is not refreshed; (c) Enlarged image formation time, changing image content is blurred. 2.4.3. Control unit (a) Failure of the control unit; (b) Failure in the communication between camera and control unit; (c) Failure in the communication between control unit and monitor. 2.5. Verification 2.5.1. Verification of the performance of the camera monitor system under no-fault and fault conditions shall be conducted against the manufacturer's specification. 2.5.2. The verification of the safety concept of the reaction of the camera monitor system shall, at the discretion of the Type Approval Authority, be verified according to the influence of failures in paragraph 2.4. The verification results shall correspond with the documented summary of the failure analysis in paragraph 2.4., to a level of overall effect such that the safety concept and execution are confirmed as being | (c) Defocus of the optics, reduced detail resolution. 2.4.2. Monitor (a) Failure of monitor display, no image content is displayed; (b) Freeze of displayed monitor content, image content is not refreshed; (c) Enlarged image formation time, changing image content is blurred. 2.4.3. Control unit (a) Failure of the control unit; (b) Failure in the communication between camera and control unit; (c) Failure in the communication between control unit and monitor. 2.5. Verification 2.5.1. Verification of the performance of the camera monitor system under no-fault and fault conditions shall be conducted against the manufacturer's specification. 2.5.2. The verification of the safety concept of the reaction of the camera monitor system shall, at the discretion of the Type Approval Authority, be verified according to the influence of failures in paragraph 2.4. The verification results shall correspond with the documented summary of the failure analysis in paragraph 2.4., to a level of overall effect such that the safety concept and execution are confirmed as being | | <u>標解像度降低</u> <u>12.2.4.2 顯示器</u> <u>(a) 顯示器顯示故障，無影像顯示；</u> <u>(b) 顯示器影像凍結，影像無刷新；</u> <u>(c) 影像放大之形成時間，導致變換影像模糊。</u> <u>12.2.4.3 控制單元</u> <u>(a) 控制單元故障；</u> <u>(b) 攝影機和控制單元之間通訊故障；</u> <u>(c) 顯示器和控制單元之間通訊故障。</u> <u>12.2.5 驗證</u> <u>12.2.5.1 應依照申請者提供之規格，針對無故障及故障情況，進行攝影機-顯示器系統性能驗證。</u> <u>12.2.5.2 應依據12.2.4之規定，進行攝影機-顯示器系統反應之安全概念驗證。應搭配12.2.4之故障分析摘要文件列出驗證結果，且其整體效應之水平應確保具適當之安全概念與呈現。</u> |

| 增/修內容 | 原內容 | 修訂國內法規條文草案 | 對應國內法規條文 |
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| adequate. | adequate. | | |

車輛型式安全審驗管理辦法第十四條附表車輛安全檢測基準發布後部分條文修正草案對照表內容彙整（計 13 項）

| 項次 | 法規名稱 | 修訂法規內容 | 新增法規項目 | 頁碼 | 提案單位 | 提報方向 |
|-----|-----------------|--------|--------|------|------|---|
| 1. | 二、車輛規格規定 | ◎ | | P.45 | VSCC | 1. 修正法規文字妥適性。 2. 考量自 110/1/1 及 112/1/1 起新型式及各型式 M2、M3、N2 及 N3 類車輛應裝設數位式行車紀錄器，參考十六之一，增訂 7.2.3 相關規定。 |
| 2. | 三之三、車輛燈光與標誌檢驗規定 | ◎ | | P.45 | VSCC | 參考 UN R48 修訂表一試驗類別 D 之所對應條文。 |
| 3. | 三之四、車輛燈光與標誌檢驗規定 | ◎ | | P.45 | VSCC | |
| 4. | 二十四之一、機車控制器標誌 | ◎ | | P.46 | VSCC | 參考 UN R60 修訂表一編號 22-25 項目功能誤植為「控制器」，正確應為「指示器」。 |
| 5. | 四十七之一、轉向系統 | ◎ | | p.48 | VSCC | 參考 UN R79 03 版，修正文字妥適性。 |
| 6. | 四十七之二、轉向系統 | ◎ | | p.48 | VSCC | |
| 7. | 五十之一、頭枕 | ◎ | | P.49 | VSCC | 適用型式及其範圍認定原則，進行文字妥適性修正。 |
| 8. | 五十之二、頭枕 | ◎ | | P.49 | VSCC | |
| 9. | 五十一之二、門門／鉸鏈 | ◎ | | P.49 | VSCC | 刪除重複誤植內容。 |
| 10. | 七十、車道偏離輔助警示系統 | ◎ | | P.66 | VSCC | 因本項「車道標線」我國另訂有相關規定，若僅依照 UN R130 相關規定測試可能無法涵蓋我國標線要求，為求妥適調整檢測車道標線相關規定內容。 |

| 項次 | 法規名稱 | 修訂法規內容 | 新增法規項目 | 頁碼 | 提案單位 | 提報方向 |
|-----|--------------|--------|--------|------|------|---|
| 11. | 七十一、行車視野輔助系統 | ◎ | | P.67 | VSCC | 1. 參考 UN R46 04-S4 版增訂顯示器配置之相關規定。 2. 依交通部 111/9/30 結論，本次擬與各與會單位確認顯示器之位置，另併同討論其他修正條文。 |
| 12. | 八十、車輛低速警示音 | ◎ | | P.68 | VSCC | 參考 UN R138 01 版，修正機動車輛聲音有關風速量測裝置單位誤植項目。 |
| 13. | 八十之一、車輛低速警示音 | ◎ | | P.69 | VSCC | |

二、車輛規格規定

| 修訂規定 | 現行規定 | 說明 |
|---|--|---|
| 7.1.4 中華民國一百零八年一月一日起，各型式 M1 及總重量小於三點五公噸之各型式 M2 類車輛之座椅應裝設至少具備三個固定點之安全帶。各型式 N、M3 及總重量大於三點五公噸之各型式 M2 類車輛之前排兩側座椅及面向走道之最後排中間座椅應裝設至少具備三個固定點之安全帶，其餘座椅應裝設至少具備二個固定點之安全帶。 <u>中華民國一百一十年一月一日起，各型式之具密閉式車身之 L2 或 L5 類車輛，其座椅應裝設至少具備三個固定點之安全帶。</u> | 7.1.4 中華民國一百零八年一月一日起，各型式 M1、總重量小於三點五公噸之各型式 M2 類車輛及 <u>中華民國一百一十年一月一日起，各型式之具密閉式車身之 L2 或 L5 類車輛</u> 之座椅應裝設至少具備三個固定點之安全帶。各型式 N、M3 及總重量大於三點五公噸之各型式 M2 類車輛之前排兩側座椅及面向走道之最後排中間座椅應裝設至少具備三個固定點之安全帶，其餘座椅應裝設至少具備二個固定點之安全帶。 | 修正法規文字妥適性。 |
| 7.2 行車紀錄器安裝規定： 7.2.1 總聯結重量及總重量在二十公噸以上之 M 及 N 類車輛，及中華民國九十年一月一日起之八公噸以上未滿二十公噸之 M 及 N 類車輛，應裝設行車紀錄器。 7.2.2 中華民國九十六年七月一日起，新型式之八公噸以下 M2、M3 類車輛，及中華民國九十七年一月一日起，各型式之八公噸以下 M2、M3 類車輛，應裝設行車紀錄器。 <u>7.2.3 自一百一十年一月一日起，新型式之 M2、M3、N2 及 N3 類車輛及中華民國一百一十二年一月一日起，各型式之 M2、M3、N2 及 N3 類車輛應裝設符合本基準項次「十六之一、數位式行車紀錄器」之數位式行車紀錄器。</u> | 7.2 行車紀錄器安裝規定： 7.2.1 總聯結重量及總重量在二十公噸以上之 M 及 N 類車輛，及中華民國九十年一月一日起之八公噸以上未滿二十公噸之 M 及 N 類車輛，應裝設行車紀錄器。 7.2.2 中華民國九十六年七月一日起，新型式之八公噸以下 M2、M3 類車輛，及中華民國九十七年一月一日起，各型式之八公噸以下 M2、M3 類車輛，應裝設行車紀錄器。 | 考量自 110/1/1 及 112/1/1 起，新型式及各型式 M2、M3、N2 及 N3 類車輛應裝設數位式行車紀錄器，故參考十六之一，增訂 7.2.3 相關規定。 |

三之三、車輛燈光與標誌檢驗規定

三之四、車輛燈光與標誌檢驗規定

| 修訂規定 | 現行規定 | 說明 |
|---|---|------------------------------|
| 9.1.2 測試道應由 <u>表一</u> 所述交通狀況之試驗類別所組成，其速度應符合相關之道路類型： | 9.1.2 測試道應由 <u>表一</u> 所述交通狀況之試驗類別所組成，其速度應符合相關之道路類型： | 參考 UN R48 修訂表一試驗類別 D 之所對應條文。 |

修訂後

表一

| 試驗類 | 交通狀況 | 道路類型 |
|-----|------|------|
|-----|------|------|

| 別 | | 市區道路 | 多車道公路 例如：高速公路 | 郊區道路 |
|---|---|-----------------------|------------------------|-----------------------|
| | 速度 | 每小時五〇 (正負一〇) 公里 | 每小時一〇〇 (正負二〇) 公里 | 每小時八〇 (正負二〇) 公里 |
| | 完整測試道距離之平均百分比 | 百分之一〇 | 百分之二〇 | 百分之七〇 |
| A | 一輛對向來車或一輛前方車輛之交通情況，使遠光光束開啟及關閉數次。 | | X | X |
| B | 對向來車及前方車輛之交通組合情況，使遠光光束開啟及關閉數次。 | | X | X |
| C | 超車及被超車之交通情況，以使遠光光束開啟及關閉數次。 | | X | X |
| D | 對向之自行車，如 4.1.9.3.1.2 所述 | | | X |
| E | 對向來車及前方車輛之交通組合情況 | X | | |

修訂前

| 試驗類別 | 交通狀況 | 道路類型 | | |
|------|---|-----------------------|------------------------|-----------------------|
| | | 市區道路 | 多車道公路 例如：高速公路 | 郊區道路 |
| | 速度 | 每小時五〇 (正負一〇) 公里 | 每小時一〇〇 (正負二〇) 公里 | 每小時八〇 (正負二〇) 公里 |
| | 完整測試道距離之平均百分比 | 百分之一〇 | 百分之二〇 | 百分之七〇 |
| A | 一輛對向來車或一輛前方車輛之交通情況，使遠光光束開啟及關閉數次。 | | X | X |
| B | 對向來車及前方車輛之交通組合情況，使遠光光束開啟及關閉數次。 | | X | X |
| C | 超車及被超車之交通情況，以使遠光光束開啟及關閉數次。 | | X | X |
| D | 對向之自行車，如 4.1.9.2.4.1.2 所述 | | | X |
| E | 對向來車及前方車輛之交通組合情況 | X | | |

二十四之一、機車控制器標誌

| 修訂規定 | 現行規定 | 說明 |
|--|--|-----------|
| 4.一般規定 車輛安裝 表一 所述之控制器、識別標誌或指示器時，須符合控制器、識別標誌或指示器之位置、識別、操作、照度及顏色之規定。 ... 【請參考下列圖表】 | 4.一般規定 車輛安裝 表一 所述之控制器、識別標誌或指示器時，須符合控制器、識別標誌或指示器之位置、識別、操作、照度及顏色之規定。 ... 【請參考下列圖表】 | 修正表一誤植項目。 |

修訂後

表一：控制器、識別標誌及指示器之識別符號

| 編號 | 項目 | 符號 | 功能 | 位置 | 顏色 | 定義 | 操作 |
|----|--------|--|---------------------|------|-----|----|----|
| 22 | 燃油量 |  | 指示器 | 把手右側 | | | |
| | | | 識別標誌 | | 琥珀色 | | |
| 23 | 引擎冷卻水溫 |  | 指示器 | | | | |
| | | | 識別標誌 | | 紅色 | | |
| 24 | 充電狀態 |  | 指示器 | | | | |
| | | | 識別標誌 | | 紅色 | | |
| 25 | 引擎機油壓力 |  | 指示器 | | | | |
| | | | 識別標誌 | | 紅色 | | |

修訂前

表一：控制器、識別標誌及指示器之識別符號

| 編號 | 項目 | 符號 | 功能 | 位置 | 顏色 | 定義 | 操作 |
|----|--------|---|---------------------|------|-----|----|----|
| 22 | 燃油量 |  | 控制器 | 把手右側 | | | |
| | | | 識別標誌 | | 琥珀色 | | |
| 23 | 引擎冷卻水溫 |  | 控制器 | | | | |
| | | | 識別標誌 | | 紅色 | | |
| 24 | 充電狀態 |  | 控制器 | | | | |
| | | | 識別標誌 | | 紅色 | | |
| 25 | 引擎機油壓力 |  | 控制器 | | | | |
| | | | 識別標誌 | | 紅色 | | |

四十七之一、轉向系統

四十七之二、轉向系統

| 修訂規定 | 現行規定 | 說明 |
|---|---|--------------------------------|
| <p>5.5.2.2.5 當系統已被致動且於速度範圍十公里/小時(或最小設定速度V_{Smin}，以較高者為準)與最大設定速度V_{Smax}間，應提供偵測駕駛者手握轉向控制裝置之機能。</p> <p>若經歷一段時間(至多十五秒)後其駕駛者手未握轉向控制裝置，則應提供光學警告訊號。此訊號可與下述訊號相同：</p> <p>光學警告訊號應指示駕駛者將雙手置於轉向控制裝置上，其應包含雙手及轉向控制裝置之圖像資訊，且可附有額外解釋文字或警告符號，圖示範例如下所示：</p> <p>若經歷一段時間(至多三十秒)後駕駛者未手握轉向控制裝置，則應至少提供紅色之雙手或轉向控制裝置圖像資訊，以及聲音警告訊號。</p> <p>警示應被致動直到駕駛者手握轉向控制裝置，或直到系統被手動或自動解除。</p> <p>若聲音警告訊號啟動後，系統最遲應於三十秒後自動解除。於解除後，系統應以不同於先前聲音警告訊號之聲音緊急訊號清楚地警示駕駛者當下系統狀態，其警告訊號應至少持續五秒或直到駕駛者再次手握轉向控制裝置。</p> <p>上述要求應依照規定11.之要求進行相關之車輛試驗。</p> <p>參考對應原文：</p> <p>When the system is active and in the speed range between 10 km/ h or V_{Smin} , whichever is higher, and V_{Smax} , it shall provide a means of detecting that the driver is holding the steering control.</p> <p>If, after a period of no longer than 15 seconds the driver is not holding the steering control, an optical warning signal shall be provided. This signal may be the same as the signal specified below in this paragraph.</p> <p>The optical warning signal shall indicate to the driver to place their hands on the steering control. It shall consist of pictorial information showing hands</p> | <p>5.5.2.2.5 當系統已被致動且於速度範圍十公里/小時(或最小設定速度V_{Smin}，以較高者為準)與最大設定速度V_{Smax}間，應提供偵測駕駛者手握轉向控制裝置之機能。</p> <p>若經歷一段時間(至多十五秒)後其駕駛者手未握轉向控制裝置，則應提供光學警告訊號。此訊號可與下述訊號相同：</p> <p>光學警告訊號應指示駕駛者將雙手置於轉向控制裝置上，其應包含雙手及轉向控制裝置之圖像資訊，且可附有額外解釋文字或警告符號，圖示範例如下所示：</p> <p>若經歷一段時間(至多三十秒)後駕駛者未手握轉向控制裝置，則應至少提供紅色之雙手或轉向控制裝置圖像資訊，以及聲音警告訊號。</p> <p>警示應被致動直到駕駛者手握轉向控制裝置，或直到系統被手動或自動解除。</p> <p>若聲音警告訊號啟動後，系統最遲應於三十秒後自動解除。於此情況下，系統應以不同於先前聲音警告訊號之聲音緊急訊號清楚地警示駕駛者當下系統狀態，其警告訊號應至少持續五秒或直到駕駛者再次手握轉向控制裝置。</p> <p>上述要求應依照規定11.之要求進行相關之車輛試驗。</p> | <p>參考 UN R79 03 版，修正文字妥適性。</p> |

| 修訂規定 | 現行規定 | 說明 |
|--|------|----|
| <p>and the steering control and may be accompanied by additional explanatory text or warning symbols see examples below:</p> <p>If, after a period of no longer than 30 seconds the driver is not holding the steering control, at least the hands or steering control in the pictorial information provided as optical warning signal shall be shown in red and an acoustic warning signal shall be provided.</p> <p>The warning signals shall be active until the driver is holding the steering control, or until the system is deactivated, either manually or automatically.</p> <p>The system shall be automatically deactivated at the latest 30 seconds after the acoustic warning signal has started. After deactivation the system shall clearly inform the driver about the system status by an acoustic emergency signal which is different from the previous acoustic warning signal, for at least five seconds or until the driver holds the steering control again.</p> <p>The above requirements shall be tested in accordance with the relevant vehicle test(s) specified in paragraph 47-2.11 of this Regulation.</p> | | |

五十之一、頭枕

五十之二、頭枕

| 修訂規定 | 現行規定 | 說明 |
|---|--|-------------------------|
| 3. 頭枕之適用型式及其範圍認定原則：頭枕之尺寸、骨架及填充物 <u>相同</u> ，惟頭枕漆、顏色及包覆材料之改變不視為型式之改變。 | 3. 頭枕之適用型式及其範圍認定原則：頭枕之尺寸、骨架及填充物，惟頭枕漆、顏色及包覆材料之改變不視為型式之改變。 | 適用型式及其範圍認定原則，進行文字妥適性修正。 |

五十一之二、門門／鉸鏈

| 修訂規定 | 現行規定 | 說明 |
|--|--|-----------|
| <p>1. 實施時間及適用範圍：</p> <p>1.1 中華民國一百零七年一月一日起，使用於 M1 及 N1 類車輛乘員進出門及尾門之新型式門門與鉸</p> | <p><u>1. 實施時間及適用範圍：</u></p> <p><u>1.1 中華民國一百零七年一月一日起，使用於 M1 及 N1 類車輛乘員進出門及尾門之新型式門門與鉸</u></p> | 刪除重複誤植內容。 |

| 修訂規定 | 現行規定 | 說明 |
|---|---|----|
| <p>鏈，應符合本項規定。</p> <p>1.2 中華民國一百一十二年一月一日起，使用於 M1 及 N1 類車輛乘員進出門及尾門，其各型式門門與鉸鏈應符合本項規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其裝設 2.5.2 完全鎖定系統，則另應符合本項 5.13.1.1 之規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其未裝設 2.5.2 完全鎖定系統，則視同符合本項之規定。</p> <p>1.2.1 中華民國一百一十二年一月一日起，使用於 M1 及 N1 類車輛具有潛在風險使乘員因車輛碰撞而彈出車外之尾門，其各型式門門與鉸鏈應符合本項規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其裝設 2.5.2 完全鎖定系統，則另應符合本項 5.13.1.1 之規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其未裝設 2.5.2 完全鎖定系統，則視同符合本項之規定。</p> <p>1.3 除幼童專用車以外之車輛，申請少量車型安全審驗者，得免符合本項規定。</p> <p>1.4 申請逐車少量車型安全審驗之車輛，得免符合本項規定。</p> <p>1.5 檢測機構得依本項基準調和之聯合國車輛安全法規(UN Regulations)，UN R11 04 系列及其後續相關修正規範進行測試。</p> | <p><u>鏈，應符合本項規定。</u></p> <p><u>1.2 中華民國一百一十二年一月一日起，使用於 M1 及 N1 類車輛乘員進出門及尾門，其各型式門門與鉸鏈應符合本項規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其裝設 2.5.2 完全鎖定系統，則另應符合本項 5.13.1.1 之規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其未裝設 2.5.2 完全鎖定系統，則視同符合本項之規定。</u></p> <p><u>1.2.1 中華民國一百一十二年一月一日起，使用於 M1 及 N1 類車輛具有潛在風險使乘員因車輛碰撞而彈出車外之尾門，其各型式門門與鉸鏈應符合本項規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其裝設 2.5.2 完全鎖定系統，則另應符合本項 5.13.1.1 之規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其未裝設 2.5.2 完全鎖定系統，則視同符合本項之規定。</u></p> <p><u>1.3 除幼童專用車以外之車輛，申請少量車型安全審驗者，得免符合本項規定。</u></p> <p><u>1.4 申請逐車少量車型安全審驗之車輛，得免符合本項規定。</u></p> <p><u>1.5 檢測機構得依本項附件五十一之二、門門／鉸鏈</u></p> <p>1. 實施時間及適用範圍：</p> <p>1.1 中華民國一百零七年一月一日起，使用於 M1 及 N1 類車輛乘員進出門及尾門之新型式門門與鉸鏈，應符合本項規定。</p> <p>1.2 中華民國一百一十二年一月一日起，使用於 M1 及 N1 類車輛乘員進出門及尾門，其各型式門門與鉸鏈應符合本項規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其裝設 2.5.2 完全鎖定系統，則另應符合本項</p> | |

| 修訂規定 | 現行規定 | 說明 |
|------|--|----|
| | <p>5.13.1.1 之規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其未裝設 2.5.2 完全鎖定系統，則視同符合本項之規定。</p> <p>1.2.1 中華民國一百一十二年一月一日起，使用於 M1 及 N1 類車輛具有潛在風險使乘員因車輛碰撞而彈出車外之尾門，其各型式門門與鉸鏈應符合本項規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其裝設 2.5.2 完全鎖定系統，則另應符合本項 5.13.1.1 之規定；已符合本基準項次「五十一之一」規定之既有型式門門與鉸鏈，若其未裝設 2.5.2 完全鎖定系統，則視同符合本項之規定。</p> <p>1.3 除幼童專用車以外之車輛，申請少量車型安全審驗者，得免符合本項規定。</p> <p>1.4 申請逐車少量車型安全審驗之車輛，得免符合本項規定。</p> <p>1.5 檢測機構得依本項基準調和之聯合國車輛安全法規(UN Regulations)，UN R11 04 系列及其後續相關修正規範進行測試。</p> | |

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| <p>6.申請者於申請認證測試時應至少提供規定所需受驗件(或檢測所必要車輛部份)及下列文件。</p> <p>6.1 規定 3.之規格資料，與受驗件圖示及/或照片。</p> <p>6.1.1 車門及其門門與車門支撐組件之詳圖(適當比例)。</p> <p>6.1.2 門門及車門支撐組件之技術描述。</p> | <p>6.申請者於申請認證測試時應至少提供規定所需受驗件(或檢測所必要車輛部份)及下列文件。</p> <p>6.1 規定 3.之規格資料，與受驗件圖示及/或照片。</p> <p>6.1.1 車門及其門門與車門支撐組件之詳圖(適當比例)。</p> <p>6.1.2 門門及車門支撐組件之技術描述。</p> <p><u>基準調和之聯合國車輛安全法規(UN Regulations)，UN R11 04 系列及其後續相關修正規範進行測試。</u></p> <p><u>2.名詞釋義：</u></p> <p><u>2.1 輔助門門：指不論有無半門狀態，具有全門狀態的門門，且裝設在具有主要門門系統的車門或車門系統。</u></p> <p><u>2.2 輔助門門系統機構：指至少有一個輔助門門及門扣組成之機構。</u></p> <p><u>2.3 尾門：指位於車輛最尾端的車門或車門系統，可供車室內外相通且無相關阻隔進出、以及具有潛在風險使乘員因車輛碰撞而彈出之裝置，其不包括：</u></p> <p><u>(a)行李廂蓋。</u></p> <p><u>(b)完全由玻璃材料組成直接裝設於玻璃材料上的車門或者窗戶其門門及/或鉸鏈系統。</u></p> <p><u>2.4 車體連件：指鉸鏈固定於車體結構的部份。</u></p> <p><u>2.5 附加防護：</u></p> <p><u>2.5.1 兒童安全鎖系統：指能夠獨立作動及解除，阻斷由車內門把或其他解鎖裝置作動門鎖的裝置，其可為手動式或電動式，並可裝設於車輛上車輛內任何位置。</u></p> <p><u>2.5.2 完全鎖定系統(Full locking system)：若非藉由此系統之作動，則所有車門皆無法藉由車內之車門釋放門把或車內之其他門門釋放控制裝置進行操作。</u></p> <p><u>2.6 車門關閉警告系統：指在點火開關打開且門門系統未於全門狀態下，可提供駕駛人明亮會作動視覺訊號之系統，該訊號位在駕駛人可清楚看見之處。</u></p> | |
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| | <p><u>2.7 車門鉸鏈系統：指使用一個或多個的鉸鏈以作為車門的支撐。</u></p> <p><u>2.8 門門系統機構：指至少有一個門門及門扣組成之機構。</u></p> <p><u>2.9 車門連件：指鉸鏈固定於車門上的部分，構成一可動性的機構。</u></p> <p><u>2.10 車門系統：車門、門門、門扣、鉸鏈及滑軌之組合，及車門上其他之車門支撐組件與其週邊門框。雙扇式車門之車門系統包括其兩扇車門。</u></p> <p><u>2.11 雙扇式車門：指一個系統有兩個車門，前車門或在車廂邊端的車門先開啟，並連結帶動後車門或以螺栓連結的車門隨後打開。</u></p> <p><u>2.12 叉形螺栓：指當門門於鎖定位時啮合於門扣上的門門部分。</u></p> <p><u>2.13 叉形螺栓開啟方向：指相反於門扣進入門門使與叉形螺栓啮合的方向。</u></p> <p><u>2.14 全門狀態：指門門將車門保持在完全閉合位置之狀態。</u></p> <p><u>2.15 鉸鏈：指用來連結車門及車體並且控制車門擺徑以利乘員進出的元件。</u></p> <p><u>2.16 鉸鏈軸銷：指鉸鏈連結車門及車體且作為擺動軸的部分。</u></p> <p><u>2.17 門門：指用以讓車門於車體上保持閉合的裝置。</u></p> <p><u>2.18 主要門門：指兼具有全門和半門狀態的門門，且製造廠指定為「主要門門」裝置。製造廠可能在之後不會更改這樣的指定。應依要求提供特定車種或車型的主要門門資料。</u></p> <p><u>2.19 主要門門系統機構：至少有一主要門門及門扣組成。</u></p> <p><u>2.20 半門狀態：指車門保持在半閉合位置之狀態。</u></p> <p><u>2.21 前側車門：指當椅背調整至最接近垂直及最末端位置，於側方觀看，應有百分之五十以上的開口區域在駕駛座椅背最末端之前方，以利乘員直接進出車輛。</u></p> <p><u>2.22 後側車門：指當椅背調整至最接近垂直及最末端位置，於側方觀</u></p> | |
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| | <p><u>看，應有百分之五十以上的開口區域在駕駛座椅背最末端之後方，以利乘客直接進出車輛。</u></p> <p><u>2.23 門扣：指讓門門嚙合以保持車門在全門或半門狀態之機件。</u></p> <p><u>2.24 行李廂蓋：指一個可動式蓋板可讓物品由車外進入車輛的一個空間，並藉由固定式隔板或固定式椅背或可向下摺疊的椅背而與車室完全區隔。</u></p> <p><u>3. 門門與鉸鏈之適用型式及其範圍認定原則：</u></p> <p><u>3.1 車輛型式系列。</u></p> <p><u>3.2 門門型式。</u></p> <p><u>3.3 車門固定機件(鉸鏈)型式。</u></p> <p><u>3.4 門門與車門固定機件(鉸鏈)在車體結構上之安裝方式。</u></p> <p><u>3.5 滑動門型式。</u></p> <p><u>4. 一般規格：</u></p> <p><u>4.1 本規定適用所有側方車門、尾門及車門組件，而摺疊式車門、捲動式車門、可分離式車門及用於緊急逃生之車門除外。</u></p> <p><u>4.2 門門</u></p> <p><u>4.2.1 每一個有鉸鏈的車門系統應至少有一個主要門門系統。</u></p> <p><u>4.2.2 每一個滑動門系統應裝配下列其中一項：</u></p> <p><u>(a)一個主要門門系統，或</u></p> <p><u>(b)一個具有全門狀態的門門系統及一個車門關閉警告系統。</u></p> <p><u>5.試驗方法與基準：</u></p> <p><u>5.1 裝配有鉸鏈的車門，門門負載試驗方法</u></p> <p><u>5.1.1 負載測試一（如圖一）。</u></p> <p><u>5.1.1.1 全門狀態</u></p> <p><u>5.1.1.1.1 安裝門門及門扣於執行測試之底座上。門門及門扣設定在全門狀態，讓嚙合方向平行於底座連桿。</u></p> <p><u>5.1.1.1.2 施加九00牛頓之負載使門門及門扣於車門開啟方向分離。</u></p> <p><u>5.1.1.1.3 依 5.2.1.1 所述方向及圖四所示，在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐，且在此間紀錄下最大拉力值。</u></p> <p><u>5.1.1.2 半門狀態</u></p> | |
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| | <p><u>5.1.1.2.1 安裝門門及門扣於執行測試之底座上。門門及門扣設定在半門狀態，讓嚙合方向平行於底座連桿。</u></p> <p><u>5.1.1.2.2 施加九〇〇牛頓之負載使門門及門扣於車門開啟方向分離。</u></p> <p><u>5.1.1.2.3 依 5.2.1.1 所述方向及圖四所示，在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐，且在此間紀錄下最大拉力值。</u></p> <p><u>5.1.1.2.4 門門的測試板應有一個讓門扣進入的開口，且開口應如該門門所安裝於車門週邊。</u></p> <p><u>5.1.2 負載測試二（如圖二）。</u></p> <p><u>5.1.2.1 全門狀態</u></p> <p><u>5.1.2.1.1 安裝門門及門扣於執行測試之底座上。門門及門扣設定在全門狀態。</u></p> <p><u>5.1.2.1.2 依 5.2.2.1 所述方向及圖四所示，在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐，且在此間紀錄下最大拉力值。</u></p> <p><u>5.1.2.2 半門狀態</u></p> <p><u>5.1.2.2.1 安裝門門及門扣於執行測試之底座上。門門及門扣設定在半門狀態。</u></p> <p><u>5.1.2.2.2 依 5.2.2.1 所述方向及圖四所示，在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐，且在此間紀錄下最大拉力值。</u></p> <p><u>5.1.3 負載測試三（僅適用於垂直方向開啟之車門。如圖三）。</u></p> <p><u>5.1.3.1 安裝門門及門扣於執行測試之底座上。門門及門扣設定在全門狀態。</u></p> <p><u>5.1.3.2 依 5.2.3 所述方向及圖四所示，在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐，且在此間紀錄下最大拉力值。</u></p> <p><u>5.2 裝配有鉸鏈的車門，門門負載試驗基準</u></p> <p><u>5.2.1 負載測試一</u></p> <p><u>5.2.1.1 在全門狀態且門門及門扣不被受到二次相互壓縮的情況下，於垂直門門表面的方向施加一一〇〇〇牛頓的負載，每一個主要門門系統及輔助門門系統應不可脫開。</u></p> | |
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| | <p><u>5.2.1.2 在半門狀態時，於上述規定之方向施加四五〇〇牛頓的負載，主要門門系統應不可脫開。</u></p> <p><u>5.2.2 負載測試二</u></p> <p><u>5.2.2.1 在全門狀態時，於叉形螺栓開啟方向且平行於門門表面的方向施加九〇〇〇牛頓的負載，每一個主要門門系統及輔助門門系統應不可脫開。</u></p> <p><u>5.2.2.2 在半門狀態時，於上述規定之方向施加四五〇〇牛頓的負載，主要門門系統應不可脫開。</u></p> <p><u>5.2.3 負載測試三(適用於垂直方向開啟之車門)</u></p> <p><u>5.2.3.1 於鉸鏈軸銷之垂直方向上施加九〇〇〇牛頓的負載，車門的每一個主要門門系統應不可脫開全門狀態。</u></p> <p><u>5.3 裝配有鉸鏈的車門，門門慣性負載試驗</u></p> <p><u>5.3.1 方法 1-計算</u></p> <p><u>5.3.1.1 以數值分析方式決定門門系統抵抗慣性負載能力。彈性力是指在裝設位置及在釋放位置產生最小彈性力的平均值。摩擦力的影響及做功不列入計算之考量。若會限制門門打開，則在組件上牽引的重力亦可省略。計算中得省略這些，因為其本身提供了額外的安全性。</u></p> <p><u>5.3.1.2 計算的考量-需可計算每個組件或次總成在特定方向的最小慣性負載之阻抗，於任何方向施加三〇g的慣性負載，其總合阻抗應確保門門系統（當裝設於車門上時）維持門合狀態，圖五為範例說明。</u></p> <p><u>5.3.2 方法 2-整車動態測試</u></p> <p><u>5.3.2.1 測試準備</u></p> <p><u>5.3.2.1.1 應牢靠固定完成車或車殼，使加速時，確保其碰撞脈衝曲線在表一與圖六定義的區帶內。</u></p> <p><u>5.3.2.1.2 車門得加以繫綁以避免損傷用以紀錄車門開啟的設備。</u></p> <p><u>5.3.2.1.3 安裝用以紀錄車門開啟的設備。</u></p> <p><u>5.3.2.1.4 關閉要測試的車門並確認門門於全門狀態，車門不上鎖，若有窗</u></p> | |
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| | <p><u>戶則關閉所有窗戶。</u></p> <p><u>5.3.2.2 測試方向（如圖七）</u></p> <p><u>5.3.2.2.1 縱向面設定 1-使車輛或車殼縱軸與加速裝置對正，模擬前方碰撞。</u></p> <p><u>5.3.2.2.2 縱向面設定 2-使車輛或車殼縱軸與加速裝置對正，模擬後方碰撞。</u></p> <p><u>5.3.2.2.3 橫向面設定 1-使車輛或車殼橫軸與加速裝置對正，模擬駕駛側之側方碰撞。</u></p> <p><u>5.3.2.2.4 橫向面設定 2（僅適用在每一側有不同之車門配置）-使車輛或車殼橫軸與加速裝置對正，模擬駕駛側對向方位之側方碰撞。</u></p> <p><u>5.3.3 方法 3-車門動態測試</u></p> <p><u>5.3.3.1 測試準備</u></p> <p><u>5.3.3.1.1 安裝個別的或整組的車門總成至測試夾具上。每一個車門及門扣應對應實車的位置安裝且須符合慣性測試的方向規定。</u></p> <p><u>5.3.3.1.2 安裝測試夾具到加速裝置（台車）上。</u></p> <p><u>5.3.3.1.3 安裝用以紀錄車門開啟的設備。</u></p> <p><u>5.3.3.1.4 確認門於全閉狀態，車門繫綁且不上鎖，若有窗戶則關閉窗戶。</u></p> <p><u>5.3.3.2 測試方向（如圖七）</u></p> <p><u>5.3.3.2.1 縱向面設定 1-使加速裝置上之車門次系統朝向前方碰撞方向。</u></p> <p><u>5.3.3.2.2 縱向面設定 2-使加速裝置上之車門次系統朝向後方碰撞方向。</u></p> <p><u>5.3.3.2.3 橫向面設定 1-使加速裝置上之車門次系統朝向駕駛側側方碰撞方向。</u></p> <p><u>5.3.3.2.4 橫向面設定 2-使加速裝置上之車門次系統朝向駕駛側對向方位側方碰撞方向。</u></p> <p><u>5.3.3.2.5 垂直面設定 1（適用垂直方向開啟之車門）-使加速裝置上車門次系統之垂直軸（於車輛上裝設之狀況）與加速裝置之中軸對正，模擬車輛翻覆，施加負載的方向為由車門最頂端往最底端（於車輛上裝設之狀況）。</u></p> | |
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| | <p><u>5.3.3.2.6 垂直面設定 2 (適用垂直方向開啟之車門) -使加速裝置上車門次系統之垂直軸 (於車輛上裝設之狀況) 與加速裝置之中軸對正，模擬車輛翻覆，於上述垂直面 1 之施加負載的相反方向施加負載 (於車輛上裝設之狀況)。</u></p> <p><u>5.3.4 方法 2 及 3 之測試操作</u></p> <p><u>5.3.4.1 在至少三 0 毫秒的期間保持至少三 0 g 的加速度，並使該加速度維持在表一及圖六所示之脈衝波形區帶內。</u></p> <p><u>5.3.4.2 應依照下列方向加速測試裝置：</u></p> <p><u>5.3.4.2.1 方法 2 之測試：</u></p> <p><u>5.3.4.2.1.1 如 5.3.2.2.1 所述之方向。</u></p> <p><u>5.3.4.2.1.2 如 5.3.2.2.2 所述之方向。</u></p> <p><u>5.3.4.2.1.3 如 5.3.2.2.3 所述之方向。</u></p> <p><u>5.3.4.2.1.4 如 5.3.2.2.4 所述之方向。</u></p> <p><u>5.3.4.2.2 方法 3 之測試：</u></p> <p><u>5.3.4.2.2.1 如 5.3.3.2.1 所述之方向。</u></p> <p><u>5.3.4.2.2.2 如 5.3.3.2.2 所述之方向。</u></p> <p><u>5.3.4.2.2.3 如 5.3.3.2.3 所述之方向。</u></p> <p><u>5.3.4.2.2.4 如 5.3.3.2.4 所述之方向。</u></p> <p><u>5.3.4.2.2.5 如 5.3.3.2.5 所述之方向。</u></p> <p><u>5.3.4.2.2.6 如 5.3.3.2.6 所述之方向。</u></p> <p><u>5.3.4.3 若有任何的脈衝點超過 36g 且符合測試規範，則此測試可視為合格。</u></p> <p><u>5.3.4.4 確認車門於測試過程中未開啟與關閉。</u></p> <p><u>已知：</u></p> <p><u>門門系統減速度 30g</u></p> <p><u>按鈕之平均彈性力 = 0.459kgf</u></p> <p><u>制動爪輸出扭力 = 0.0459kgf m</u></p> <p><u>$a = 30g \text{ (m/s}^2\text{)}$</u></p> <p><u>$F = ma = m \cdot 30g = m \cdot 294.2$</u></p> <p><u>$M1 = 0.0163kg$</u></p> <p><u>$M2 = 0.0227kg$</u></p> <p><u>$M3 = 0.0122kg$</u></p> <p><u>$M4 = 0.0422kg$</u></p> <p><u>$d1 = 31.50mm$</u></p> <p><u>$d2 = 10.67mm$</u></p> <p><u>$d3 = 4.83mm$</u></p> <p><u>$d4 = 31.50mm$</u></p> <p><u>$d5 = 37.59mm$</u></p> <p><u>$d6 = 1.90mm$</u></p> | |
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$$F1 = M1 \times a - \text{圈狀彈簧平均負載} = (0.0163\text{kg} \times 30g) - 0.459\text{kgf} = 0.03\text{kgf}$$

$$F2 = M2 \times a = 0.0227\text{kg} \times 30g = 0.681\text{kgf}$$

$$F3 = M3/2 \times a = 0.0122\text{kg}/2 \times 30g = 0.183\text{kgf}$$

$$\Sigma Mo = F1 \times d1 + F2 \times d2 - F3 \times d3 = 0.03 \times 31.5 + 0.681 \times 10.67 - 0.183 \times 4.83 = 7.33\text{kgf mm}$$

$$F5 = Mo/d4 = 7.33/31.5 = 0.2328\text{kgf}$$

$$F6 = M4 \times a = 0.0422\text{kg} \times 30g = 1.266\text{kgf}$$

$$\Sigma Mo = \text{制動爪輸出扭力} - (F5 d5 + F6 d6)/1000 = 0.0459 - (0.2328 \times 37.59 + 1.266 \times 1.9)/1000 = 0.0347\text{kgf m}$$

5.4 裝配有鉸鏈的車門，門門慣性負載試驗基準

每一個主要門門系統及輔助門門系統應符合 5.4.1 及 5.4.2 之動態規定或依 5.4.3 計算抵抗慣性負載之能力。

5.4.1 在全門狀態時，於門門系統（包括門門及其作動機件）上以平行於車輛縱向軸與橫向軸方向施加三 0 g 的慣性負載，每一個有鉸鏈的車門上其主要門門系統及輔助門門系統均應不可脫開。

5.4.2 在全門狀態時，於門門系統（包括門門及其活動機件）上以平行於車輛垂直軸方向施加三 0 g 的慣性負載，每一個有鉸鏈的尾門上其主要門門系統及輔助門門系統均應不可脫開。

5.4.3 需可計算每個組件或次總成在特定方向的最小慣性負載之阻抗，於 5.4.1 及 5.4.2 規定之方向施加三 0 g 的慣性負載，其總合阻抗應確保門門系統當裝設於車門上時維持閉合狀態。

5.5 裝配有鉸鏈的車門，鉸鏈試驗

5.5.1 多重鉸鏈系統

5.5.1.1 縱向負載測試（如圖八）

5.5.1.1.1 鉸鏈系統安裝至測試設備上。鉸鏈中心線應對應實車上的位置（車門完全閉合）安裝。為了測試目的，使系統中兩個鉸鏈最末端的

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| | <p><u>距離為四〇六正負四公釐。在車輛縱向面方向通過鉸鏈軸銷的中心線施加負載，如圖九。</u></p> <p><u>5.5.1.1.2 在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐。任一鉸鏈脫開即為不合格，在測試時紀錄下最大拉力值。</u></p> <p><u>5.5.1.2 橫向負載測試（如圖八）</u></p> <p><u>5.5.1.2.1 鉸鏈系統安裝至測試設備上。鉸鏈中心線應對應實車上的位置（車門完全閉合）安裝。為了測試目的，使系統中兩個鉸鏈最末端的距離為四〇六正負四公釐。在車輛橫向面方向通過鉸鏈軸銷的中心線施加負載，如圖九。</u></p> <p><u>5.5.1.2.2 在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐。任一鉸鏈脫開即為不合格，在測試時紀錄下最大拉力值。</u></p> <p><u>5.5.1.3 垂直負載測試（適用垂直方向開啟之車門。如圖八）</u></p> <p><u>5.5.1.3.1 鉸鏈系統安裝至測試設備上。鉸鏈中心線應對應實車上的位置（車門完全閉合）安裝。為了測試目的，使系統中兩個鉸鏈最末端的距離為四〇六正負四公釐。在垂直於縱向面、橫向面的方向，通過鉸鏈軸銷的中心線施加負載，如圖九。</u></p> <p><u>5.5.1.3.2 在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐。任一鉸鏈脫開即為不合格，在測試時紀錄下最大拉力值。</u></p> <p><u>5.5.2 單一鉸鏈的評估。在某些情況，必要時得測試鉸鏈系統中的個別鉸鏈。當依下列程序測試，單一鉸鏈測試結果應符合 5.6.1 的規定（例：在一個具有 2 個鉸鏈的系統中，單一鉸鏈應能承受施加於整個系統負載之百分之五十）。</u></p> <p><u>5.5.2.1 縱向負載測試：鉸鏈系統安裝至測試設備上。鉸鏈中心線應對應實車上的位置（車門完全閉合）安裝。為了測試目的，在車輛縱向面方向通過鉸鏈軸銷的中心線施加負載，在達到規定負載之前所施加之</u></p> | |
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| | <p><u>拉力速率應不大於每分鐘五公釐。任一鉸鏈脫開即為不合格，在測試時紀錄下最大拉力值。</u></p> <p><u>5.5.2.2 橫向負載測試：鉸鏈系統安裝至測試設備上。鉸鏈中心線應對應實車上的位置（車門完全閉合）安裝。為了測試目的，在車輛橫向面方向通過鉸鏈軸銷的中心線施加負載，在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐。任一鉸鏈脫開即為不合格，在測試時紀錄下最大拉力值。</u></p> <p><u>5.5.2.3 垂直負載測試：鉸鏈系統安裝至測試設備上。鉸鏈中心線應對應實車上的位置（車門完全閉合）安裝。為了測試目的，在垂直於縱向面及橫向面方向的鉸鏈軸銷中心線施加負載，在達到規定負載之前所施加之拉力速率應不大於每分鐘五公釐。任一鉸鏈脫開即為不合格，在測試時紀錄下最大拉力值。</u></p> <p><u>5.5.3 對於琴鍵式的鉸鏈，鉸鏈間隔的規定不適用，且更改測試設備以便測試負載施加於整個鉸鏈。</u></p> <p><u>5.6 裝配有鉸鏈的車門，鉸鏈試驗基準</u></p> <p><u>5.6.1 每一個車門鉸鏈系統應符合以下：</u></p> <p><u>(a)可以撐托住車門。</u></p> <p><u>(b)施加縱向負載一一〇〇〇牛頓後不可脫離。</u></p> <p><u>(c)施加橫向負載九〇〇〇牛頓後不可脫離。</u></p> <p><u>(d)於垂直方向開啟之車門，於鉸鏈施加垂直負載九〇〇〇牛頓後不可脫離。</u></p> <p><u>5.6.2 前述規定係依 5.5 測試方法執行。</u></p> <p><u>5.6.3 若鉸鏈系統內的單一鉸鏈替代整個鉸鏈系統的測試，則其應承受鉸鏈系統中所有鉸鏈數量對應之等比例負載。</u></p> <p><u>5.6.4 裝有後部鉸鏈且獨立於其他車門操作的側車門：</u></p> <p><u>(a)當車速高於或等於每小時四公里，內側門把應無法作動，及</u></p> <p><u>(b)該等車門應具有車門關閉警告系</u></p> | |
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| | <p><u>統。</u></p> <p><u>5.7 側滑動門：門門負載試驗</u> <u>測試方法同 5.1.1 及 5.1.2。</u></p> <p><u>5.8 側滑動門：門門負載試驗基準</u></p> <p><u>5.8.1 負載測試一</u></p> <p><u>5.8.1.1 在全門狀態情況下，於垂直門</u> <u>門表面的方向施加一一〇〇〇牛頓</u> <u>的負載，應至少有一個門門系統不</u> <u>可脫開。</u></p> <p><u>5.8.1.2 主要門門系統在半門狀態時，</u> <u>於上述規定之方向施加四五〇〇牛</u> <u>頓的負載，門門系統應不可脫開。</u></p> <p><u>5.8.2 負載測試二</u></p> <p><u>5.8.2.1 在全門狀態情況下，於叉形螺</u> <u>栓開啟方向且平行於門門表面的方</u> <u>向，施加九〇〇〇牛頓的負載，應</u> <u>至少有一個門門系統不可脫開。</u></p> <p><u>5.8.2.2 主要門門系統在半門狀態時，</u> <u>於上述規定之方向施加四五〇〇牛</u> <u>頓的負載，主要門門系統應不可脫</u> <u>開。</u></p> <p><u>5.9 側滑動門：門門慣性負載試驗</u> <u>測試方法同 5.3。</u></p> <p><u>5.10 側滑動門：門門慣性負載試驗基</u> <u>準</u></p> <p><u>每一個符合 5.8.1 及 5.8.2 之門門系</u> <u>統，應符合 5.10.1 的動態測試要求</u> <u>或 5.10.2 慣性負載計算要求。</u></p> <p><u>5.10.1 門門系統於在全門狀態時，以平</u> <u>行於車輛縱向軸與橫向軸方向，鎖</u> <u>定裝置不鎖定之下，於門門系統</u> <u>（包括門門及其作動機件）上施加</u> <u>三〇g 的慣性負載，門門系統應不可</u> <u>脫開。</u></p> <p><u>5.10.2 可對每個組件或次總成計算最小</u> <u>慣性負載之阻抗，於 5.8.1 及 5.8.2</u> <u>規定之方向施加三〇g 的慣性負載，</u> <u>其總合阻抗應確保門門系統當裝設</u> <u>於車門上時維持門合狀態。</u></p> <p><u>5.11 側滑動門：完整車門系統試驗</u></p> <p><u>5.11.1 一般規定</u></p> <p><u>5.11.1.1 可使用完成車或具有滑動門及</u> <u>其支撐組件的車殼執行測試。</u></p> <p><u>5.11.1.2 使用可施加兩個負載的設備，</u> <u>依 5.12 規定施加橫向且向外側之負</u> <u>載。該設備包括以下元件：</u></p> | |
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| | <p><u>5.11.1.2.1 施加兩個負載的平板。</u></p> <p><u>5.11.1.2.2 可於橫向且向外側施加負載的兩個負載設備，位移量至少有三〇〇公釐。</u></p> <p><u>5.11.1.2.3 兩個有足以測量受測值的荷重計。</u></p> <p><u>5.11.1.2.4 兩個線性位移量測設備，以於測試期間測量負載設備的位移量。</u></p> <p><u>5.11.1.2.5 可量測車門內側與門框外緣間距離的設備，該距離應至少有一〇〇公釐。</u></p> <p><u>5.11.2 測試準備</u></p> <p><u>5.11.2.1 由滑動門上移除所有的內飾板及裝飾用的零組件。</u></p> <p><u>5.11.2.2 移除座椅及任何干涉測試設備安裝與操作的零組件與所有支撐結構、任何與車門重疊之非結構元件及造成不適當位移之施力平板。</u></p> <p><u>5.11.2.3 安裝施加負載的設備及相關支撐骨架至測試車的地板上。當施予負載時，每一施力裝置及其相關之支撐結構應牢固於車門之水平表面上。</u></p> <p><u>5.11.2.4 對於包含有一個門門/門扣之處，確認出滑動門前緣及後緣，或其鄰接滑動門的車輛骨架。</u></p> <p><u>5.11.2.5 關閉滑動門，確認所有的車門支撐組件完全的作動。</u></p> <p><u>5.11.2.6 對於任何包含一個門門/門扣的受測車門邊緣，應依下列程序執行：</u></p> <p><u>5.11.2.6.1 用以施加負載的平板，其長一五〇公釐、寬五〇公釐、厚度至少一五公釐。平板邊緣應有半徑六公釐正負一公釐之圓角。</u></p> <p><u>5.11.2.6.2 將施加負載的設備及施加負載的平板靠放在車門，使負載施加水平且垂直於車輛縱向中心線，且垂直方向上定位於門門/門扣在車門安裝處。</u></p> <p><u>5.11.2.6.3 施加負載的平板之長邊應平行且盡量靠近於車門之內邊緣，但平板前緣不得超出車門內緣一二·五公釐。</u></p> <p><u>5.11.2.7 對於任何包含一個以上門門/門</u></p> | |
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| | <p><u>扣的受測車門邊緣，應依下列程序執行：</u></p> <p><u>5.11.2.7.1 可施加負載的平板長三〇〇公釐、寬五〇公釐、厚度至少一五公釐。平板邊緣應有半徑六公釐正負一公釐之圓角。</u></p> <p><u>5.11.2.7.2 將施加負載的設備及施加負載的平板靠放在車門，使負載施加水平且垂直於車輛縱向中心線，且垂直方向上定位於門門/門扣總成最外緣間之中點。</u></p> <p><u>5.11.2.7.3 施加負載的平板之長邊應平行且盡量靠近於車門之內邊緣，但平板前緣不得超出車門內緣一二·五公釐。</u></p> <p><u>5.11.2.8 對於任何不包含至少一個以上門門/門扣的受測車門邊緣，應依下列程序執行：</u></p> <p><u>5.11.2.8.1 可施加負載的平板長三〇〇公釐、寬五〇公釐、厚度至少一五公釐。</u></p> <p><u>5.11.2.8.2 將施加負載的設備及施加負載的平板靠放在車門，使負載施加水平且垂直於車輛縱向中心線，且垂直方向上定位於車門邊緣長度之中點，以避開與車窗玻璃接觸。</u></p> <p><u>5.11.2.8.3 施加負載的平板應盡量靠近車門邊緣。施加負載的平板不需直立。</u></p> <p><u>5.11.2.9 車門解鎖，無任何額外的零件或組件可接合或固定於側滑動門或其組件上。</u></p> <p><u>5.11.2.10 裝上用以量測測試過程期間車門分離距離的裝備。</u></p> <p><u>5.11.2.11 放置施加負載的設施，以使施加負載的平板接觸滑動門的內側。</u></p> <p><u>5.11.3 測試程序</u></p> <p><u>5.11.3.1 依製造廠指定，以每分鐘施力達到二〇〇〇牛頓之方式移動每一個施加負載的設備，直到每一個施加負載的設備施加力量達到九〇〇〇牛頓或任一個施加負載的設備總位移量達到三〇〇公釐。</u></p> <p><u>5.11.3.2 若有一個施加負載的設備比另一施加負載的設備提早達到九〇〇</u></p> | |
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| | <p><u>0 牛頓，應保持九 0 0 0 牛頓的負載，直到另一施加負載的設備也達到九 0 0 0 牛頓。</u></p> <p><u>5.11.3.3 一旦兩個施加負載的設備達到九 0 0 0 牛頓，停止往前移動，並保持該負載至少十秒鐘。</u></p> <p><u>5.11.3.4 如上述保持施加負載的設備的位置，且在六 0 秒內測量門框外部邊緣與車門內側之間沿著車門周圍的分離距離。</u></p> <p><u>5.12 側滑動門：完整車門系統試驗基準</u></p> <p><u>5.12.1 滑軌及滑座總成或其他撐托滑動門的構件，當全門狀態時，沿著車門橫向軸施加總合一八 0 0 0 牛頓的負載，應不可從車門門框上分離。</u></p> <p><u>5.12.2 若有下列任一情形產生即視為不合格：</u></p> <p><u>5.12.2.1 當保持規定的負載時，車門內側與門框外側邊緣間之分離處允許直徑一 0 0 公釐之球體順暢通過。</u></p> <p><u>5.12.2.2 任一負載施加設備之總位移量達到三 0 0 公釐。</u></p> <p><u>5.13 車門鎖定</u></p> <p><u>5.13.1 每扇車門應至少裝設一個鎖定裝置，當門鎖定时，應防止由門外門把或其他之外部門門釋放控制之作動，且車內有提供作動功能及鎖定之釋放/嚙合裝置。</u></p> <p><u>5.13.1.1 若安裝完全鎖定系統，則其僅能在點火開關位於引擎非運轉模式(或電動車輛處於非傳動模式)下被作動，且應至少結合以下其中一項方式裝設：</u></p> <p><u>(a)車內偵測警報系統或其他能夠偵測乘員移動之配備，若偵測到乘客室內有乘員移動情況，則應禁止完全鎖定系統之設定；或</u></p> <p><u>(b)於點火開關關閉(或電動車輛處於非傳動模式)且完全鎖定系統作動中，仍可由車內作動聲音警告裝置(如喇叭)。</u></p> <p><u>5.13.2 後側車門</u></p> <p><u>每扇後側車門應至少裝設一個鎖定裝置，當鎖定时，應防止由門內門把</u></p> | |
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| | <p><u>或其他之內部門門釋放控制之作動，需要由個別操作來解開車門鎖定及作動門內門把或其他之內部門門釋放控制。</u></p> <p><u>5.13.2.1 鎖定裝置可分為以下種類：</u></p> <p><u>(a)兒童安全鎖系統，或</u></p> <p><u>(b)位於車內之鎖定釋放/嚙合裝置，讓駕駛者或者門邊乘客容易操作。</u></p> <p><u>5.13.2.2 上述(a)及(b)為可允許之附加鎖定特性。</u></p> <p><u>5.13.3 尾門</u></p> <p><u>每扇裝設有一個門內門把或其他之內部門門釋放控制之尾門，應於車內至少裝設一個鎖定裝置，當鎖定时，應防止門內門把或其他之內部門門釋放控制之作動，需要由個別操作來解開車門鎖定及作動門內門把或其他之內部門門釋放控制。</u></p> <p><u>5.13.3.1 鎖定裝置可為下列種類之一：</u></p> <p><u>(a)兒童安全鎖系統，或</u></p> <p><u>(b)位於車內且容易操作之鎖定釋放/嚙合裝置，或</u></p> <p><u>(c)當車速高於或等於四公里/小時，使該車門無法藉由車內門把或其他之車內門門釋放控制裝置進行操作之系統，或</u></p> <p><u>(d)上述(a)、(b)或(c)之任意組合。</u></p> <p><u>6.申請者於申請認證測試時應至少提供規定所需受驗件(或檢測所必要車輛部份)及下列文件。</u></p> <p><u>6.1 規定 3.之規格資料，與受驗件圖示及/或照片。</u></p> <p><u>6.1.1 車門及其門門與車門支撐組件之詳圖(適當比例)。</u></p> <p><u>6.1.2 門門及車門支撐組件之技術描述。</u></p> | |
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七十、車道偏離輔助警示系統

| 修訂規定 | 現行規定 | 說明 |
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| 1.3 檢測機構得依本項基準調和之聯合國車輛安全法規 (UN Regulations)，UN R130 00 系列及其後續相關修正規範， <u>並以規定 6.要求之車道標線</u> 進行測試。 | 1.3 檢測機構得依本項基準調和之聯合國車輛安全法規 (UN Regulations)，UN R130 00 系列及其後續相關修正規範進行測試。 | 因本項「車道標線」我國另訂有相關規定，僅依照 UN R130 相關規定測試可能無法涵蓋我國標線要求，為求妥適調整檢測車道標線相關規定內容。 |

七十一、行車視野輔助系統

| 修正規定 | 現行規定 | 說明 |
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| 1.實施時間及適用範圍： ... <u>1.6 中華民國一百十四年一月一日起，各型式之 M2、M3、N2 及 N3 類車輛，其行車視野輔助系統，另應符合 4.1.5 及 4.2.6 之規定。</u> | 1.實施時間及適用範圍： ... | 1. 參考 UN R46 04-S4 版增訂顯示器配置之相關規定。 |
| 2.名詞釋義 <u>2.1 行車視野輔助系統：指透過裝設於車外之攝影鏡頭，並由顯示螢幕提供駕駛人車輛行駛時週邊路面影像之視野輔助系統。</u> <u>2.2 駕駛眼點：一垂直於車輛縱向中心面之線段（該線段之中點為通過製造廠指定之駕駛座中心，且位於平行於車輛縱向中心面的垂直平面內，並在 R 點上方六百三十五公釐處），於該線段上，距離中點兩側各三十二點五公釐處（總距離為六十五公釐）之兩個點即為駕駛眼點。</u> <u>2.3 駕駛參考眼點(Ocular reference point)：係指駕駛眼點中心位置。</u> | 2.名詞釋義 行車視野輔助系統：指透過裝設於車外之攝影鏡頭，並由顯示螢幕提供駕駛人車輛行駛時週邊路面影像之視野輔助系統。 | 2. 依交通部 111/9/30 結論，本次擬與各與會單位確認本項之實施時間。 |
| 3.行車視野輔助系統之適用型式及其範圍認定原則： 3.1 車種代號相同。 3.2 廠牌及車輛型式系列相同。 3.3 攝影鏡頭與顯示螢幕之設計相同。 3.4 底盤車廠牌相同。 3.5 底盤車製造廠宣告之底盤車型式系列相同。 3.6 若以底盤車代替完成車執行本項全部或部分檢測時，其適用型式及其範圍認定原則： | 3.行車視野輔助系統之適用型式及其範圍認定原則： 3.1 車種代號相同。 3.2 廠牌及車輛型式系列相同。 3.3 攝影鏡頭與顯示螢幕之 <u>型式系列與</u> 設計相同。 3.4 底盤車廠牌相同。 3.5 底盤車製造廠宣告之底盤車型式系列相同。 3.6 若以底盤車代替完成車執行本項全部或部分檢測時，其適用型式及其範圍認定原則： | |

| 修正規定 | 現行規定 | 說明 |
|---|---|----|
| 3.6.1 車種代號相同。 3.6.2 底盤車廠牌相同。 3.6.3 底盤車製造廠宣告之底盤車型式系列相同。 3.6.4 攝影鏡頭與顯示螢幕之設計相同。 | 3.6.1 車種代號相同。 3.6.2 底盤車廠牌相同。 3.6.3 底盤車製造廠宣告之底盤車型式系列相同。 3.6.4 攝影鏡頭與顯示螢幕之 <u>型式系列</u> 與設計相同。 | |
| 4.行車視野輔助系統規定： ... 4.1.1 系統解析度不得低於總像素二十七萬像素(pixels)，且最低照度應優於一lux，訊號/雜訊比不得低於四十分貝(dB)，並使攝影之影像能清晰顯示於螢幕。 4.1.2 攝影鏡頭動態範圍值應大於 <u>七十</u> 分貝(dB)。 ... 4.1.5 <u>最大背景亮度應可視周遭環境(例如：在夜間、隧道等行駛時)進行調整，避免造成駕駛者不適、分心或眩光。</u> | 4.行車視野輔助系統規定： ... 4.1.1 系統解析度不得低於總像素二十七萬像素(pixels)，且最低照度應優於一lux，訊號/雜訊比不得低於四十分貝(dB)，並使攝影之影像能清晰顯示於螢幕。 4.1.2 攝影鏡頭動態範圍值應大於 <u>七十</u> 分貝(dB)。 | |
| 4.2.6 車身兩側及倒車影像顯示要求 4.2.6.1 車室內應設置尺寸不小於七吋之顯示器，顯示器之中心點不應位於駕駛眼點平面下傾三十度以下。 4.2.6.2 若裝設兩組以上之顯示器時，則右側視野之影像應呈現於駕駛參考眼點縱向垂直平面之右側，左側視野之影像應呈現於駕駛參考眼點縱向垂直平面之左側。 4.2.6.3 車身兩側影像之顯示器可與倒車影像顯示器共用。 | | |
| 4.2.6.4 顯示器之配置應於駕駛座能輕易判讀，並應全時顯示車身兩側之影像或於方向燈作動時連動且於作動期間持續顯示該側影像，顯示器之影像應與其所對應車輛側之實際影像左右方位相同。 4.2.6.5 各顯示器裝設位置應利於駕駛方便操作。 4.2.6.6 從駕駛參考眼點看到之既定尺寸螢幕應無任何遮蔽。可接受模擬試驗(Virtual testing)。 4.2.6.7 顯示器本身所造成之駕駛直接視野遮蔽應減至最小。 4.2.6.8 顯示器之任何零件不應有尖銳或銳利邊緣，其邊緣曲率半徑不應小於二點五公釐。 | | |

八十、車輛低速警示音

八十之一、車輛低速警示音

| 修正規定 | 現行規定 | 說明 |
|---|---|--|
| 5.機動車輛聲音之量測方法及設備 ... 5.1.3 氣象設備 ... (b)風速量測裝置：正負 <u>一公尺/秒</u> ； 參考對應原文： Methods and instruments for measuring the sound made by motor vehicles ... 1.3 Meteorological instrumentation ... (b)±1,0m/s for a wind speed-measuring device; | 5.機動車輛聲音之量測方法及設備 ... 5.1.3 氣象設備 ... (b)風速量測裝置：正負 <u>一公釐</u> /秒； | 參考 UN R138 01 版，修正機動 車輛聲音有關 風速量測裝置 單位誤植項目。 |