

車輛安全及標準部 技術公告第 1/2008 號
(VSSD TB01/2008)



車輛安全及標準部
技術公告第 1/2008 號
配備車尾升降台的車輛
增設照明設備和逆向反光輔助裝置的指引

Vehicle Safety and Standards Division
Technical Bulletin No: 1/2008
A Guide to
Install the Additional Lighting and Retro-reflective Aids on
Vehicles Equipped with Tail Lift

背景

由於在車尾安裝的升降台是以金屬薄板和細小的結構組件製成，它們的橫切面較薄，所以行人或行駛中車輛的司機是很難察覺一輛停泊車輛後敞開的車尾升降台。因此，一片敞開的車尾升降台可能對其他道路使用者構成危險，尤以在夜間為甚。為使停泊車輛的車尾升降台更加顯而易見，運輸署署長(下稱署長)已預備好一份《改善使用車尾升降台的建議》的單張給公眾參考，部分車主可以考慮參照該單張在車上增設照明設備和逆向反光輔助裝置。本指引提供有關如何增設該等裝置的資料。車主在增設任何該等裝置之前，應先細閱本指引。

Background

Since vehicle mounted tail lift is fabricated with sheet metal and small structural members, the cross sectional area of an opened tail lift of a stationary vehicle may be so thin that it is quite difficult to be seen by a pedestrian or the driver of a moving vehicle. As such, an opened tail lift may pose a hazard to other road users in particular at night. With a view to improve the conspicuousness of the tail lift of a stationary vehicle, the Commissioner for Transport (Commissioner) has prepared a leaflet namely "Tips for improving the use of vehicle mounted tail lift" for public reference. Some vehicle owners may consider following that leaflet to fit additional lighting and retro-reflective aids on their vehicles. This Guide provides the information concerning how to fit those additional devices. Vehicle owners should study this Guide carefully before they try to fit those devices on their vehicles.

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必須遵守的規例

2. 《道路交通（交通管制）規例》（第 374 章，附屬法例）第 47(2)(c) 條規定，任何人不得在展示任何獨特而又亮着的燈時，在道路上駕駛汽車，除非該燈符合《道路交通（車輛構造及保養）規例》（第 374 章，附屬法例）（下稱《車輛構造及保養規例》）第 VII 部的條文。因此，任何安裝於在道路上駕駛中的車輛上的照明設備和逆向反光輔助裝置，基本上應符合《車輛構造及保養規例》所訂定的構造要求。本指引詳述在增設照明設備和逆向反光輔助裝置時所須注意的事項。

Regulations to be Observed

2. Regulation 47(2)(c) of the Road Traffic (Traffic Control) Regulations (Cap sub. Leg.) stipulates that no person shall drive a motor vehicle on a road showing any distinctive lighted lamps except in accordance with Part VII of the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap 374 sub. leg.) (C&M Reg). As such, any lighting and retro-reflective aids fitting on a vehicle being driven on a road should basically be in line with the construction requirements as stipulated in C& M Reg. This Guide elaborates points to be noted when additional lighting and retro-reflective aids are fitted.

輪廓標誌（見圖 1）

3. 輪廓標誌指一組以逆向反光材料¹製造並獲聯合國 1958 年協定允許安裝於貨車上的條狀標誌。在夜間，輪廓標誌（側面是黃色，後面是紅色）可以反射駛近車輛的大燈所發出的光線，從而使停泊着的車輛及其大小更顯而易見。現時，香港的《車輛構造及保養規例》並沒有輪廓標誌的要求。由於輪廓標誌可使有關車輛更加顯眼，並可減低發生交通意外的機會，署長認為，允許車輛安裝輪廓標誌符合公眾利益，並且無須申請豁免。然而，該允許²祇適用於遵照本指引附件 1 所載《輪廓標誌的安裝及性能規定》的條款安裝的輪廓標誌。至於署長所指定的安裝方法和材料，大致上符合相關的國際標準，即聯合國 1958 年協定中第 48 和 104 條³。

Contour Markings (see Figure 1)

3. Contour markings refer to a set of strips made of retro-reflective material⁴ and permitted to be fitted on goods vehicle under the 1958 Agreement of

¹ 逆向反光材料指當受到定向照射時會把相當大部分的入射線逆向反射的平面或裝置。就本指引而言，當逆向反光材料反射光時，逆向反光輔助裝置反射的光視作發光。因此，該裝置視為獨特的燈或反光器。

² 由於運輸署署長現正就《車輛構造及保養規例》中的照明和反光設備要求進行修例工作，如果輪廓標誌不遵照本指引附件 1 所載的《輪廓標誌的安裝及性能規定》的條款安裝，該等安裝方法可能跟未來的規定相抵觸。

³ 有關安裝規定，請參閱歐洲經濟委員會規例第 48 條；至於材料規定，則請參閱歐洲經濟委員會規例第 104 條。有關的歐洲經濟委員會規例，載於聯合國官方網站（網址：<http://www.unece.org/trans/main/wp29/wp29regs.html>）。

⁴ Retro-reflective material means a surface or device from which, when directionally irradiated, a relatively large portion of incident radiation is retro reflected and when a retro-reflective material is reflecting light. The reflecting light from a retro reflector aids is treated for the purposes of this Guide as showing light; the device is therefore

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United Nation. Contour markings (with yellow sideways and red rearwards) can reflect the light emitted from the headlamp of an oncoming vehicle so as to highlight the presence and the size of a stationary vehicle concerned at night. At present, the contour markings requirement is not specified in C&M Reg in Hong Kong. Since the device can improve the conspicuousness of a vehicle and have a chance to reduce traffic accident, the Commissioner considers that it would be in the public interests to permit vehicle to fit with contour marking and no exemption is required. However, this permission⁵ would only be valid for contour markings fitted according to the conditions as stipulated in “Installation and Performance Requirements of Contour Markings” in **Annex 1** of this Guide. Regarding the installation method and material specified by the Commissioner, they are in general in compliance with the relevant international standards i.e. Regulation 48 and Regulation 104⁶ of 1958 Agreement of UN.

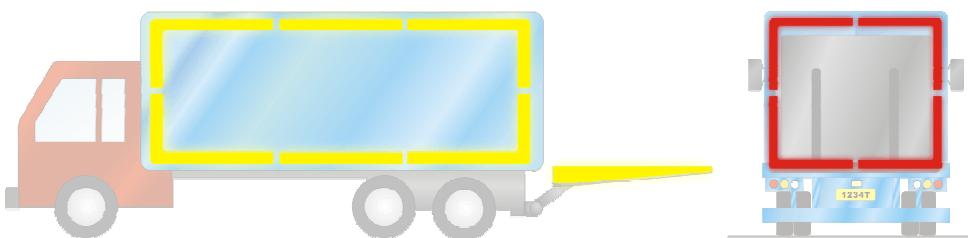


圖 1 – 輪廓標誌示意圖 (側面：黃色；後面：紅色)

*Figure 1 - Sample layout of Contour markings
(Sideways: yellow; Rearwards: red)*

增設後示廓燈(後燈)⁷或琥珀色警告燈 (見圖 2 和圖 3)

4. 當安裝於車尾升降台外角的一對後示廓燈 (見圖 2) 或琥珀色警告燈 (見圖 3) 的接駁方式是只容許該車尾升降台移離其存放位置⁸時才能發出指定的
- 紅色光 (如屬後燈，它們須照向後方) 或
 - 閃動琥珀色光 (如屬琥珀色警告燈，它們可照向後方或同時照向後方和側邊)，

它們應被視作可接受的「改裝後燈」(《車輛構造及保養規例》第 103 條)，或可接受的「改裝危險警告設備」(《車輛構造及保養規例》第 117 條)。由於這些改裝裝置可使開啓的車尾升降台更加顯眼，並可減低發生交通意外的機會，署長認

regarded as distinctive lamp or reflector.

⁵ The Commissioner is now revising the lighting and reflectors requirements of the C&M Regulations. If the installation of the contour markings is not done according to “Installation and Performance Requirements of Contour Markings” as stipulated in **Annex 1** of this Guide, such installation method may have conflicts with the new requirements.

⁶ For installation requirement, please refer to ECE Regulation 48. For material requirement, please refer to ECE Regulation 104. The relevant ECE Regulations may be seen in the UN Official website as follows: <http://www.unece.org/trans/main/wp29/wp29regs.html>

⁷ 後燈指用以從後觀看車輛及其寬度的燈。

⁸ 車輛可於車尾升降台摺合至存放位置時繼續行駛。

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為，允許車輛安裝該等裝置符合公眾利益，並且無須申請豁免。請注意！安裝在升降台上的後示廓燈或琥珀色警告燈可能會凸出升降台的表面及有機會絆倒升降台使用者，因此建議該等裝置應盡量靠近升降台外角，並在該等裝置附近髹上反光的黃色警告線，從而提醒升降台使用者它們的位置。

Additional rear position lamps(rear lamps)⁹ or amber warning lamps (see Figure 2 and 3)

4. When a pair of rear position lamps (see **Figure 2**) or amber warning lamps (see **Figure 3**) is fitted at the outer corners of the tail lift, they should be regarded as acceptable modified rear lamps (as permitted in Reg. 103 of the C&M Reg) or acceptable modified hazard warning devices (Reg. 117 of the C&M Reg) if these lamps are so connected that they can only show

- a. red light (in case of rear lamp, they shall show light rearwards) or
- b. flashing amber light (in case of amber warning lamps, they can show light rearwards or both rearwards and sideways)

when tail lift is moved away from its parking position¹⁰. In view of the fact that these modified devices can improve the conspicuousness of an opened tail lift and has a chance to reduce traffic accident, the Commissioner considers that it would be in the public interests to permit vehicle to fit with these devices and no exemption is required. Please note that the rear position lamps or amber warning lamps installed on the tail lift platform may protrude on its surface and platform users may trip up on them. As such, it is recommended that the lamps should be fitted as close as practical at the outer corners of the tail lift. Retro-reflective yellow lines should be printed near the lamps to remind the location of them to platform users.

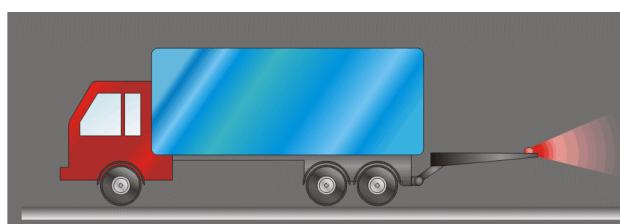


圖 2 – 增設後示廓燈示意圖 (向後：紅色)

Figure 2 - Sample layout of additional rear position lamp (Rearwards: red)

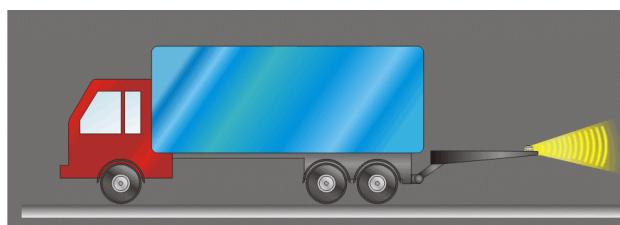


圖 3 – 增設琥珀警告燈示意圖 (向後及向側或只向後：琥珀色)

⁹ Rear position lamp means a lamp used to indicate the presence and width of the vehicle when viewed from the rear.

¹⁰ It means the tail lift has been stowed in a position that the vehicle is ready to move on.

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*Figure 3 - Sample layout of additional amber warning lamp
(both rearwards and sideways or rearwards: amber)*

車內照明（見圖 4）

5. 《車輛構造及保養規例》第 113 條規定，發生故障的車輛可有一盞或多盞發出自光並符合該規例第(2)款規定的工作燈，以照明發生意外或故障的現場。儘管在路邊停泊上落貨的車輛與發生故障的車輛，兩者性質可能類同，但上述規例只為後者而設。在這方面，當安裝於貨車的燈如調校至不會對其他道路使用者造成眩目情況，並只在車尾升降台移離其存放位置時照亮該車的升降台周圍地方，該燈會歸類為有關車輛的「車內照明」設備，而安裝該類車內照明設備無須申請豁免。

Interior lighting (see Figure 4)

5. Regulation 113 of the C&M Reg stipulates that a breakdown vehicle may carry one or more work lamps showing a white light which is complied with paragraph (2) in that regulation for the purposes of illuminating the scene of an accident or breakdown. Although a stationary loading/unloading vehicle and a breakdown vehicle at the road side may be similar in nature, the above regulation is designed for the later scenario only. In this regard, when a lamp which is fitted on a good vehicle and is so adjusted that it will not cause glare to other road users and can only light up area around the tail lift of that vehicle when tail lift is moved away from its parking position, the lamp will be classified as an “interior lighting” of the vehicle concerned and no exemption is required for fitting of this interior lighting.

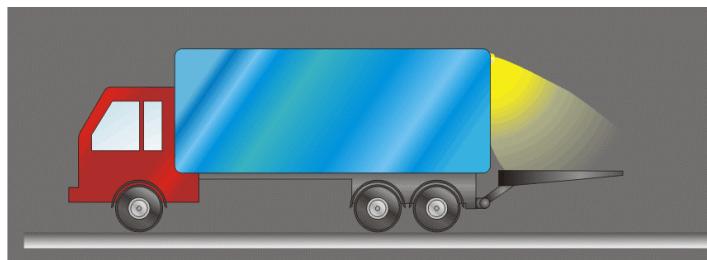


圖 4 – 車內照明示意圖
Figure 4 - Sample layout of interior lighting

旗號標誌

6. 現時，很多車尾升降台都安裝一對旗號標誌，以凸顯開啓了的車尾升降台。不過，這些旗號標誌通常並非以逆向反光材料製造，其作用會在夜間減弱。本指引容許車主把普通旗號標誌更換為以逆向反光材料製造的旗號標誌。由於旗號標誌可使開啓的車尾升降台更加顯眼，並可減少發生交通意外的機會，署長認為，允許車輛安裝旗號標誌符合公眾利益，並且無須申請豁免。然而，該允許¹¹祇

¹¹ 由於署長現正就《車輛構造及保養規例》中的照明和反光設備要求進行修例工作，如果旗號標誌不遵照本指引附件 1 所載的《旗號標誌的安裝及性能規定》的條款安裝，該等安裝

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適用於遵照本指引附件 2 所載的《旗號標誌的安裝及效能規定》的條款安裝的旗號標誌。此外，旗號標誌應配成一對，且應盡可能貼近車尾升降台的後緣；其設計和式樣應分別參照圖 5 和圖 6 所示的範本。

Flag Markings

6. At present, many tail lifts are fitted with a pair of flags with a view to highlight an opened tail lift. However, these flags are normally made of non-retro-reflective material and their function is diminished at night. This Guide allows vehicle owner to replace the normal flags with a pair of flag markings made of retro-reflective material. In view of the fact that flag markings can improve the conspicuousness of an opened tail lift and has a chance to reduce traffic accident, the Commissioner considers that it would be in the public interests to permit vehicle to fit with flag markings and **no exemption is required**. However, this permission¹² would only be valid for flag markings fitted according to the conditions as stipulated in “Installation and Performance Requirements of Contour Markings” in **Annex 2** of this Guide. Furthermore, flag markings should be in matched pair and should be fitted as close to the rear edge of the tail lift as possible. Their layout and pattern should follow the sample as stipulated in **Figure 5** and **Figure 6** respectively.

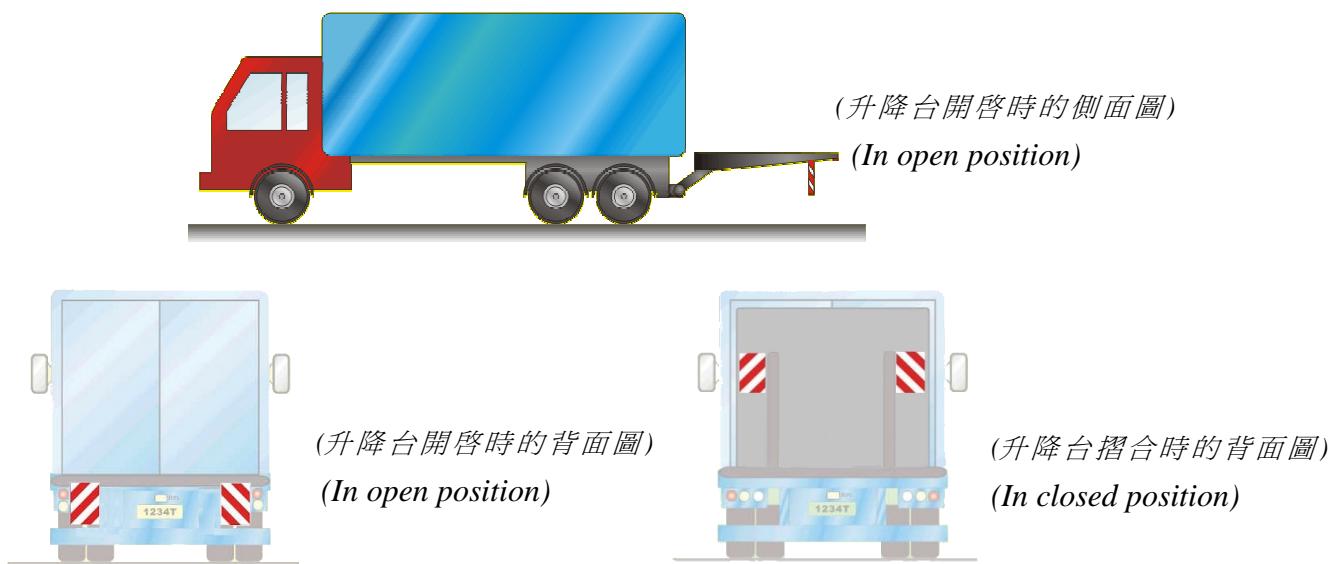


圖 5 – 在伸出車尾的設備上安裝旗號標誌示意圖

Figure 5 - Sample layout of rear mounted flag markings for projecting equipment

¹² 方法可能跟未來的規定相抵觸。

The Commissioner is now revising the lighting and reflectors requirements of the C&M Regulations. If the installation of the flag markings is not done according to “Installation and Performance Requirements of Flag Markings” as stipulated in **Annex 1** of this Guide, such installation method may have conflicts with the new requirements.

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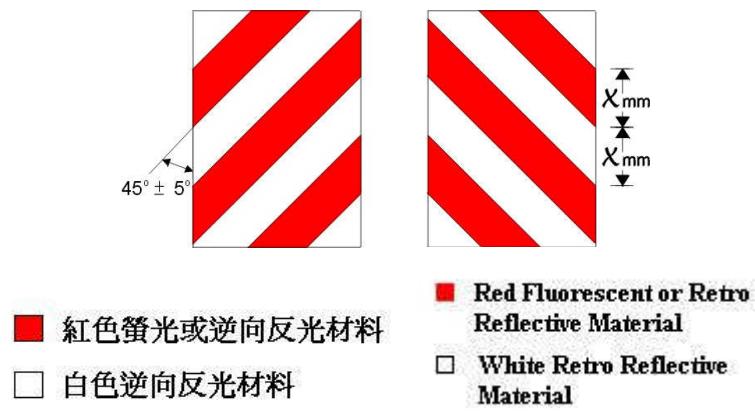


圖 6 – 旗號標誌式樣
Figure 6 - Pattern of the flag markings

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附件 1
Annex 1

輪廓標誌的安裝及效能規定

Installation and Performance Requirements of Contour Markings

- (1) 任何配備升降台或類似裝置的車輛均可如**圖 1** 所示設計，安裝逆向反光的輪廓標誌，使升降台或類似裝置更加清晰可見和易於辨認。
- (1) Any vehicle fitted with a lifting board or similar devices may be fitted with retro-reflective contour marking to increase its visibility and recognition of such mechanism according to layout as shown in **Figure 1**.
- (2) 安裝在車輛上以逆向反光材料製造的標誌，可由單一條連續式條狀標誌或若干段斷續式樣的條狀標誌組成，並與地面平行或盡可能與地面平行。
- (2) Retro-reflective marking materials installed on vehicles may be made up of a single strip or several strips preferably continuously, parallel or as close as possible parallel to the ground.
- (3) 在車輛的側面和後面安裝的輪廓標誌須盡量標示全車的長度和闊度或其整體形狀的大小。「全車的長度和闊度」指至少達車輛實際長度及闊度的 80%。
- (3) The mounting of the contour markings should identify as close as possible the entire length and width or overall shape of the vehicle to the side and rear. "Entire" means at least 80% of the length and width.
- (4) 條狀標誌須以逆向反光材料製造。
- (4) The strips shall be made of retro-reflective material.
- (5) 在車尾安裝的輪廓標誌須為紅色。
- (5) Contour markings installed on the rear of vehicles shall be red in colour.
- (6) 在車輛側面安裝的輪廓標誌須為黃色。
- (6) Contour markings installed on the sides of vehicles shall be yellow in colour.
- (7) 每條條狀標誌的闊度須為 50 毫米+10/-0 毫米。每段條狀標誌的長度至少須能夠顯示一個完整的標準標記¹³。不過，最低闊度的規定並不適用於那些因厚度不一而無法遵守最低闊度規定的升降台或類似裝置。
- (7) Each strip shall be 50 mm + 10/-0 mm in width. The minimum length of a strip shall be such that at least one standard mark¹⁴ is visible. However, the minimum width requirement is not applicable on lifting board or similar devices where its thickness is irregular and it is not possible to keep the

¹³ 標準標記是指製造商加入以示有關材料符合本附件第 11 段所述聯合國歐洲經濟委員會規例第 104 條規定的標記。

¹⁴ Standard mark means a mark put by the manufacturer to indicate the material is in compliance with the ECE Regulation 104 mentioned in para. 11 of this Annex.

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minimum width.

- (8) 如採用斷續式樣的條狀標誌，條狀標誌之間的距離須盡量縮短，並且不得超逾最短條狀標誌長度的 50%。
- (8) In case of non-continuous strips, the distance between strips should be as small as possible and should not exceed 50% of the length of shortest strip.
- (9) 逆向反光標誌的下部須離地面不少於 250 毫米及不得高於 1500 毫米。不過，如因技術條件所限而不能遵守離地高度不超過 1 500 毫米的規定時，2100 毫米的高度限制或可予以接受。
- (9) The lower part of the retro-reflective markings should have a minimum height above the ground of at least 250 mm and a maximum height of 1 500 mm. However, 2 100 mm may be accepted in cases where technical conditions forbid the compliance with the maximum value of 1 500 mm.
- (10) 在車尾裝設的逆向反光標誌與每盞強制性停車燈之間的距離須超過 200 毫米。
- (10) The distance between the retro-reflective markings fitted to the rear of a vehicle and each obligatory stop lamp should be greater than 200 mm.
- (11) 逆向反光標誌所用材料須符合聯合國歐洲經濟委員會規例第 104 條 (E/ECE/324-E/ECE/TRANS/505/ Rev.2/ Add. 103/Amend. 2) 所列明有關色度、光度、物理及機械的規定（包括歐洲經濟委員會其後為統一有關批核重型長車及其拖架的逆向反光標誌的條文而作出並於 2002 年 12 月 10 日生效的一切修訂），並須附有清晰可見的批核標記，以示有關規定已獲遵從。
- (11) Retro-reflective marking materials shall satisfy the colorimetric, photometric, physical and mechanical requirements set forth in the ECE Regulation 104 (E/ECE/324-E/ECE/TRANS/505/ Rev.2/ Add. 103/Amend. 2) including all subsequent amendments made by the Economic Commission for Europe came into force on 10 December 2002 for uniform provisions concerning the approval of retro-reflective marking for heavy and long vehicles and their trailers and bearing a legible approval mark to indicate compliance of that requirement.

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附件 2

Annex 2

旗號標誌的安裝及效能規定

Installation and Performance Requirements of Flag Markings

- (1) 任何車輛如配備可改變車輛整體尺寸的升降台或類似裝置，可安裝一或多組旗號標誌（採用旗或板的形式），使伸出的升降台或類似裝置更加清晰可見和易於辨認。
(1) Any vehicle fitted with a lifting board or similar device which may alter the overall dimensions of the vehicle may be fitted with one or more set of flag markings in form of flags or boards to increase the visibility and recognition of such projecting mechanism.
- (2) 任何在車輛升降台安裝的旗號標誌必須依照**圖 5**的設計示意圖製造。
(2) Any flag markings fitted on a lifting board of a vehicle shall follow sample layouts in **Figure 5**.
- (3) 旗號標誌可用面積不少於 500 平方厘米的彈性材料或實心板製造。如以實心板製造，該實心板必須沒有鋒利的邊緣，及其安裝方式不會對其他道路使用者造成任何傷害。
(3) The flag markings may be made by flexible material or solid board of size not less than 500 square centimeters. In case of a solid board, it should be free from sharp edge and be fitted in the way that it will not cause any injury to other road users.
- (4) 除因升降台或類似裝置的設計所限外，安裝在車輛升降台或類似裝置的旗號標誌的反光面與其裝有該旗號標誌的一邊的邊緣距離不得超過 400 毫米。
(4) Unless it is due to the design constraint of the lifting broad or similar device, no reflective area of the flag marking carried by a vehicle shall be positioned more than 400 millimetres from the outermost part of the lifting broad or similar device on that side on which the flag marking is placed.
- (5) 旗號標誌必須依照**圖 6**所示顏色和式樣製造。人字形斜條的斜度須為 $45^\circ \pm 5^\circ$ 。各斜條的闊度必須相等。
(5) The contour marking shall conform to the colour and pattern in **Figure 6**. The slope of the oblique strips of the chevron band shall be $45^\circ \pm 5^\circ$. The width of the strips shall be equal.