

Updating Vehicle Construction Requirements by Transport Department to Improve Road Safety

Contents

- (2-5) Updating Vehicle Construction Requirements by Transport Department to Improve Road Safety**
- (6-8) Exclusive Interviews with Champions of 2022 Best Apprenticeship Competition (2)**
- (9) Latest Updates of Vehicle Maintenance Registration Unit**
- (10) Latest Developments of the Registration Schemes**
- (11) Prize Quiz Issue No.41**
- (12) Training Institutes Providing Continuing Professional Development Courses for Vehicle Mechanics**

2-5. Updating Vehicle Construction Requirements by Transport Department to Improve Road Safety

To enhance road safety and to embrace updated automotive technology, the Government proposes six legislative amendments to update vehicle construction requirements and driving rules, which will be introduced in this issue for the trade's easy reference and preparation for compliance with the amended legislation.

(1) Requiring the installation of acoustic vehicle alerting system for electric/hybrid electric vehicles

Electric vehicles (EVs), including hybrid EVs, are quieter vehicles. Compared with motor vehicles solely propelled by internal combustion engines, they are quieter in operation, so pedestrians may not be acoustically alerted of the road conditions and accidentally hit by such vehicles.

To safeguard the safety of pedestrians and other road users, the automotive industry has developed an acoustic vehicle alerting system (AVAS) exclusively for quiet vehicles in recent years. Such device will emit warning sounds to alert nearby pedestrians and other road users whenever the vehicle is operating at a low speed. Currently, major automobile manufacturing economies such as Japan, Europe and the United States have required automobile manufacturers to install vehicle sound warning systems for new EVs.

To ensure road safety, the Government will amend the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A) to require the installation of an AVAS in compliance with the law for any EV manufactured on or after a specified date.

(2) Requiring the installation of over-height warning system for vehicles with extendable aerial structures

In recent years, serious traffic accidents involving vehicles equipped with extendable aerial structures (aerial structures) such as lorry cranes, tippers, mobile cranes and aerial platforms occurred from time to time, because the aerial structures of these vehicles are not properly stowed. These accidents may not only cause danger to the drivers and other road users, but also lead to serious damage to nearby road facilities and structures (such as footbridge).

Currently, there are several over-height warning systems in the market, which are especially designed for such vehicles. The system will alert the driver timely if the aerial structure is out of its stowed position when the vehicle is in motion.

To enhance road safety, the Government will amend Cap. 374A to require the installation of an over-height warning system by a specified date for any vehicle with an aerial structure that can be extended or raised, as a result of which the overall height of the vehicle exceeds the restriction set out in the First Schedule to Cap. 374A.

To ensure that the over-height warning system installed on the vehicle complies with relevant requirements, the registered vehicle owner and/or his/her agent must arrange for the over-height warning system to be tested before sending the vehicle to a vehicle examination centre of the Transport Department (TD) for an annual examination. The test must be conducted in the presence of a competent person, i.e. (i) a Registered Professional Engineer (Mechanical); (ii) a Registered Vehicle Mechanic (Mechanical) who has completed the recognised training on the testing of over-height warning systems; or (iii) an authorised representative of the manufacturer, and a certificate of the test must be issued by the competent person. When the vehicle undergoes the annual examination, the certificate of the test must be produced to the vehicle examiner for checking purposes. To facilitate the operation of the trade and reduce the inconvenience caused to the trade by the implementation of the new measure, certificates of the test issued by registered vehicle mechanics with valid registration status but not yet completing the recognised training on the testing of over-height warning systems will still be accepted by the TD from 1 April 2023 to 30 June 2024.

(3) Revising the statutory requirement of reflecting mirrors and introducing “digital mirrors”

The requirements of the installation of reflecting mirrors are set out in the existing legislation but there is no specific requirement on the performance of reflecting mirrors and the field of vision.

In addition, with the continuous advancement of automotive technology, “digital mirrors” as shown in the photo below are currently available in the market. Some vehicle manufacturers have started using “digital mirrors” to replace conventional reflecting mirrors.

In view of the above, the Government will amend Cap. 374A to set out the specifications and performance requirements for reflecting mirrors and “digital mirrors” (such as the image quality, reflecting mirror area, field of vision, etc.) to ensure that drivers would have a clear vision to monitor nearby road traffic and reduce the likelihood of traffic accidents attributable to blind spots of vehicles. The amended legislation will also allow the use of “digital mirrors” as an alternative to conventional reflecting mirrors. Given the lead time required for the trade to adjust the design and production plans of the vehicles and obtaining relevant certification, the above requirements will be implemented about three years after the amended legislation comes into effect.

(4) Relaxing restrictions on visual display unit

Under regulation 37 of Cap. 374A, a visual display unit (VDU) must only give the driver (a) information about the current state of the vehicle or its equipment; (b) the current closed-circuit view of the area surrounding the vehicle; (c) information about the current location; or (d) any other information only for navigating purposes. The above requirement applies to the VDU at any time, regardless of whether the vehicle is in motion or not.

Nonetheless, there has been an increasing variety of information that can be displayed on a VDU such as messaging, video streaming, etc. in recent years. Overseas places such as the European Union, Japan and New South Wales of Australia have also allowed the display of any type of information on the VDU when a vehicle is stationary or parked. In view of the above, as well as the road traffic conditions in Hong Kong and technological advancement, the Government will amend the above legislation to relax the restrictions on the types of information and view to be displayed on the VDU by allowing the display of any type of information on the VDU when the parking brake of a vehicle is applied (i.e. the vehicle is parked).

(5) Revising the driving rules to enable the use of remote control parking function

In recent years, vehicle manufacturers have equipped their new products with Advanced Driver Assistance Systems (ADASs) to enhance driving experience and ensure road and vehicle safety. Among the various functions of an ADAS, the remote control parking function enables the driver to use a portable device (such as a mobile phone) to remotely control and park the vehicle at a designated parking space. This function also detects obstacles along the travelling path of the vehicle automatically and stop the vehicle in case of emergency to avoid colliding with another vehicle or a nearby object and causing an accident. However, the driver must stay close to the vehicle to monitor and control the vehicle during the operation.

Currently, regulation 42(1)(g) of the Road Traffic (Traffic Control) Regulations (Cap. 374G) prohibits the driver, when driving, from using a mobile phone while holding it in his hand. Regulation 44(1) of Cap. 374G also prohibits the driver from vacating the vehicle without having the engine stopped and the parking brake applied. In other words, the driver will contravene the existing legislation when leaving the vehicle to control parking remotely.

To enable the use of remote control parking function by drivers, the Government will amend the driving rules under Cap. 374G to the effect that regulations 42(1)(g) and 44(1) shall not apply at the time when the remote control parking function is being used by the driver. To ensure that the remote control parking function is suitable for use in Hong Kong, all the relevant functions will be subject to approval by the TD.

(6) Updating other vehicle construction requirements in view of international vehicle standards and technological development

With the advancement of automotive technology, some requirements stipulated in the existing legislation such as vehicle lighting equipment, reflectors and height of a single-decked bus may not be in line with prevalent international vehicle standards and technological development. Currently, the TD has granted exemptions to certain outdated statutory requirements under its statutory power.

To specify the relevant requirements of vehicle construction in the provisions of regulations and align them with prevalent international vehicle standards and technological development, the Government will amend the relevant provisions of Cap. 374A as follows:

- (i) relaxing the maximum allowable overall height of a single-decked bus from 3.5 metres to 4.0 metres; and
- (ii) allowing the use of light emitting diodes (LED) for vehicle lighting equipment and aligning the lighting and reflector requirements with prevalent international standards.

The Government plans to submit the above legislative amendment proposals to the Legislative Council within the first half year of 2023. After the proposals are approved by the Legislative Council, we will tell you through the RVM Newsletter.

6-8. Exclusive Interviews with Champions of 2022 Best Apprenticeship Competition (2)

In the last issue of the RVM Newsletter, we mentioned the 2022 Best Apprenticeship Competition, which was organised by the Automobile Training Board under the Vocational Training Council (VTC), and published the exclusive interview with Mr YIP Chi-man, Champion in the Vehicle Body Repairer/Painter Group, and his supervisor. In this issue, we will publish the exclusive interview with Mr LEE Ling-hin, Champion in the Vehicle Mechanic/Electrician Group, and his supervisor. They will share with us the reasons for joining the vehicle maintenance industry and introduce the content and characteristics of their apprenticeship training in vehicle maintenance.

Mr LEE Ling-hin, Champion in the Vehicle Mechanic/Electrician Group

VU = Vehicle Maintenance Registration Unit LEE = Mr LEE Ling-hin

VU: Why did you choose to join the vehicle maintenance industry in the first place?

LEE: My father is engaged in vehicle maintenance. Influenced by him, I have developed strong interest in cars since childhood. When I grew up, I thought about joining the automotive industry. I happened to come across the Diploma of Vocational Education (Automotive Technology) programme organised by the VTC's Youth College, then decided to enrol on it. After completing the first year of the programme, I was recommended by the College to join the Crown Motors Limited as an apprentice for on-the-job training.

VU: You are about to complete the apprenticeship. What do you think about your future career?

LEE: I will have to work independently after completing the apprenticeship. When I become a master one day, I wish to pass the torch to the newly joined apprentices by handing down my knowledge and skills to them.

VU: Currently, what are your major areas of work and which part do you like the most?

LEE: Currently, I am mainly responsible for assisting in the regular maintenance inspection and system repair of vehicles. To shorten the time taken for maintenance, I will coordinate the disassembling sequence of components with my master before disassembling the components to see if any repair or replacement is required. Upon completion of the relevant processes, my master will reassemble the components. I like mechanical maintenance the most because I can gain vehicle maintenance skills and knowledge from doing this. I hope to carry out maintenance for my own car in the future.

VU: Have you ever thought about quitting the apprenticeship training?

LEE: No. I have been fascinated by cars since childhood and learnt about the job nature of vehicle maintenance from my father, so I have long since aspired to join the vehicle maintenance industry. I am confident about my career development and success in the industry.

VU: What is the biggest gain from the apprentice training?

LEE: I can apply what I have learnt to my work. During my studies at the College, there are not many tools for vehicle inspection and maintenance. However, I have access to a variety of tools since joining the company as an apprentice. Moreover, the company offers vehicles of different brands. Many tools are specially designed by car manufacturers and require user training by the company's masters to ensure compliance with the manufacturers' guidelines. Under the dedicated guidance of my masters, I have learnt to inspect vehicles with specialised tools, such as testing instruments designed by car manufacturers, and understood various system problems as indicated by different fault codes, so as to shorten the time needed for fault finding.

VU: What is your future career plan?

LEE: My short-term goal is to complete a higher diploma programme. If the company arranges for me to receive special training, I will seize the opportunity to better equip myself. Besides, I want to participate in competitions to learn from different counterparts and gain more experience in troubleshooting.

VU: Could you share with us how you felt about winning the award? Is there anyone you would like to thank?

LEE: I was delighted when the result was announced. I would like to express my gratitude to the instructors from the training division for their dedicated teaching, the two masters in the workshop for giving me one-on-one guidance, and the workshop supervisor and the manager for their assistance on all fronts. I would also like to thank my father, who inspired me to embark on the journey of vehicle maintenance.

VU: What advice do you have for young people who want to join the industry?

LEE: For those who want to join, apart from having interest in the automotive industry, they should be fully committed to their job. No matter how hard the work is, they should press on and never give up, so that they can rise above challenges and achieve career breakthroughs and success.

Mr Keith WONG, Service Manager, Crown Motors Limited

VU = Vehicle Maintenance Registration Unit WONG = Mr Keith WONG

VU: What prerequisite do you think that the young people who want to join the industry must have?

WONG: I think that they must be humble. Apprentices are often young people who have to balance their studies at the College and practical training in the workshop. School and workplace are totally different environments. They face not only teachers and classmates, but also masters and colleagues with different exposure and experience. Their opinions help stimulate apprentices' thinking and enhance their troubleshooting skills. Therefore, being willing to learn humbly and listen to others is crucial. Personal ability is relatively less important. Usually we do not have high expectations for apprentices. I believe that perseverance and passion for work are comparatively important. During the four-year apprenticeship, apprentices will gain job-specific skills. As vehicle maintenance requires physical labour, without determination and perseverance, they may fall behind or fail to complete the entire apprenticeship. Furthermore, owing to advances in automotive technology, apprentices need continuous learning after completing the apprenticeship to take the troubleshooting skills to new heights and keep abreast with the times.

VU: Can you share with us the content and characteristics of your apprentice training in vehicle maintenance?

WONG: The company offers vehicles of different brands. In respect of the various types of vehicles, we will use the designated learning materials provided by the relevant car manufacturers and arrange for senior instructors to teach theories by starting with the basics and progressing to advanced concepts in the technical division. As for practical training, apprentices will be assigned to work in the maintenance workshop under the guidance of experienced masters. Masters pass on skills to apprentices according to their aptitude. During the four-year apprenticeship, the technical division and the workshop supervisor will monitor the apprentices closely to see whether they can understand and apply the knowledge and skills acquired. This is very important for the personal development of apprentices because they will have to work independently and make their own judgement as to the maintenance problems encountered at work after completing the apprenticeship. They will have to bear the responsibility of passing the torch in the future as well. The company has been allocating resources to staff training for masters and apprentices to acquire the latest knowledge and skills needed to get the jobs done. The company also actively participates in competitions organised by different car manufacturers, so that masters and apprentices will have opportunities to represent the company to compete against maintenance personnel from all over the world and learn more through the competitions.

VU: Do you think vehicle maintenance is challenging nowadays?

WONG: I think “exciting” is a more apt adjective to use. When repairing customers’ cars in the workshop, apprentices have to carry out fault diagnosis by applying the theory and skills learnt in the technical division and from the masters in the workshop, in order to complete the task. This is valuable hands-on experience to apprentices. Compared with theory and experiment, on which the College places more emphasis, real cases encountered during the practical training give apprentices opportunities to apply what they have learnt and sharpen their skills. Under the guidance of masters, apprentices have to analyse and consider the problem based on the information provided by customers before deciding on an appropriate solution. Customers’ requests not only serve as the masters’ teaching materials, but also tests for the apprentices, who have to work with various divisions to complete the inspection, or pass the tests, within a limited time frame.

VU: Are there any career prospects for apprentices in vehicle maintenance?

WONG: The company has a well-defined career progression path for apprentices. After completing the apprenticeship, they will be promoted as mechanics. After attaining a certain skill level, they can be promoted as senior mechanics upon recommendation by supervisors, and further promoted as workshop technicians through our internal assessment mechanism (such as skill tests, written tests, practical tests, etc.). When they accumulate certain experience and acquire considerable skills, they also stand a better chance of being promoted as team leaders and supervisors, thus becoming part of the management team. In addition, for those who want to advance towards technical expertise, if they obtain recognition and recommendation from their superiors after being promoted to workshop technicians, they can be assigned to work as technicians in the technical division. Apart from the prospects of being promoted as senior technicians, they may also be arranged to receive training at the car manufacturers. The company is large in scale and offers ample opportunities for advancement. As long as apprentices are hard-working and self-motivated, success is around the corner.

9. Latest Updates of Vehicle Maintenance Registration Unit

Dear members of the trade, please note that the "Digital E&M Licences" services have been launched. Registered vehicle mechanics can log into the e-Licence System of the Electrical and Mechanical Services Department (EMSD) with their smartphones or other mobile devices to view their registration information and show their electronic Registration Cards for Vehicle Mechanic to the public. The electronic registration card contains a dynamic QR code for anti-forgery purposes. Members of the public can scan the QR code to verify the registration information of the mechanic concerned. To tie in with the launch of the e-licence services, the EMSD has also created and adopted a new design for the registration card in physical form.

When submitting an application for registration, renewal of registration, change or addition of the service class of registration or replacement of the registration card to the EMSD, a vehicle mechanic should submit a recent color photo and a copy of his/her identity card. The photo should meet the following specifications:

- the photo should show the full front view of the applicant's face with clear facial features;
- the photo should have a white background; and
- the photo dimensions should be 40mm (width) x 50mm (height).

When taking the photo, do not wear any headdress, and avoid heavy make-up and overly dark or light-coloured clothing.

The photo submitted will not be accepted in case of the following:

- the applicant is not centered in the photo;
- the applicant is wearing a frame across eyes;
- the hair of the applicant obscures eyes or eyebrows;
- there is flash reflection on the face or glasses of the applicant;
- the applicant is wearing a headdress;
- there is a shadow on the photo;
- the photo is too light; or
- the photo is too dark.

If the applicant chooses to submit a digital photo, the photo should meet the following specifications:

File format:	JPEG
File size:	5MB or below
Dimensions:	Captured by scanner (with the photo resolution set at 600dpi): 40mm (width) x 50mm (height)
	Captured by digital camera: 1 200 pixels (width) x 1 600 pixels (height)

10. Latest Developments of the Registration Schemes

- 1 Registered vehicle mechanics who have switched to work in another vehicle maintenance workshop **should notify the Vehicle Maintenance Registration Unit (VMRU) by e-mail (vmru@emsd.gov.hk) or fax (3968 7646)** the name, address and telephone number of the new workshop.
- 2 If there is any change in the information of the vehicle maintenance workshop (such as name of the workshop, registration number of the workshop, address, contact number and business registration certificate, etc.) or alteration in the type of workshop being registered, the person-in-charge of the workshop must, **within 14 working days** of such change, notify the VMRU of the change in writing, and submit the relevant documents for processing.

Information on the Voluntary Registration Scheme for Vehicle Mechanics:

Total number of vehicle mechanic	10 303 ^{Note 1}
Number of registered vehicle mechanics (as at end-April 2023)	8 131

Information on the Voluntary Registration Scheme for Vehicle Maintenance Workshops:

Total number of vehicle maintenance workshops	2 783 ^{Note 2}
Number of registered workshops (as at end-April 2023)	2 007

Note1: 2019 Manpower Survey Report (updated on 13 January 2020) by the Vocational Training Council and the Automobile Training Board

Note2: Database of the VMRU (updated in July 2019)

If you wish to help protect our environment by receiving electronic copies of the RVM Newsletter and other relevant leaflets, please send us the completed reply slip by e-mail (vmru@emsd.gov.hk) or WhatsApp (9016 3185). We will contact you by e-mail or mobile communication as far as possible.

Reply Slip

I/My company would like to receive the RVM Newsletter and other information leaflets by
 e-mail / WhatsApp. Please provide the relevant contact details for the above selected means of communication: means of communication:



Name: _____ Vehicle Mechanic Registration No.: VM _____

E-mail address: _____ WhatsApp: _____

The electronic version of RVM Newsletters is also available on the EMSD website:

https://www.emsd.gov.hk/en/supporting_government_initiatives/registration_scheme_for_vehicle_maintenance/publications_and_circulars/rvm_newsletter/index.html

Note

1. Starting from 15 July 2018, new application for registration as Type Four workshop (i.e. a workshop situated at a residential building or a composite building with domestic part) is no longer accepted. Furthermore, requests for conversion from a registered Type One, Type Two or Type Three workshop to a Type Four workshop will not be entertained.
2. Applicants should affix sufficient postage and provide a return address when posting renewal application forms with envelopes not provided by the EMSD. If the postage is insufficient, the EMSD will not pay for any outstanding postage or accept the mail item concerned, which will be returned to the sender (if a return address is provided) or disposed of by the Hongkong Post

11. Prize Quiz Issue No.41

- Q1. To enhance road safety and to embrace the latest development of vehicle technology, how many legislative amendments has the Government proposed to update vehicle construction requirements and driving rules?
- A** Three **B** Four
C Five **D** Six
- Q2. To ensure road safety, the Government will amend the Road Traffic (Construction and Maintenance of Vehicles) Regulations (Cap. 374A). Which of the following systems in compliance with the law will be required to be installed for any electric vehicle manufactured on or after a specified date?
- A** An over-height warning system **B** An acoustic vehicle alerting system
C A voice warning system **D** An over-weight warning system
- Q3. To improve road safety, the Government will amend Cap. 374A. Which of the following systems will be required to be installed on or before a specified date for any vehicle with an aerial structure that can be extended or raised, as a result of which the overall height of the vehicle exceeds the restriction set out in the First Schedule to Cap. 374A?
- A** An over-height warning system **B** An over-width warning system
C An over-length warning system **D** No warning system is required
- Q4. Which of the following group is included in the 2022 Best Apprentice Competition organised by the Automobile Training Board under the Vocational Training Council?
- A** Vehicle Body Repairer/Painter Group **B** Vehicle Mechanic/Electrician Group
C All of the above **D** None of the above
- Q5. What is the background colour on the top front and at the back of the new Registration Card for Vehicle Mechanic?
- A** Red **B** Orange
C Blue **D** Purple

How to participate (Issue No.41)

Let's protect the environment and submit the answers online! Please scan the QR code or click on the link (<https://vmcpd.emsd.gov.hk>) to log into the VM Learning Station to submit the answers. Vehicle mechanics may also complete the form below, circle the correct answers, and send it to the VMRU by post, fax (3968 7646) or e-mail (vmru@emsd.gov.hk).



Deadline: 31 July 2023

Question	Answer			
Q1	A	B	C	D
Q2	A	B	C	D
Q3	A	B	C	D
Q4	A	B	C	D
Q5	A	B	C	D

Name: _____

Vehicle Mechanic Registration No.: VM

E-mail Address: _____

Contact Tel. No.: _____









- Participants who answer all the questions correctly will earn one CPD hour and be notified by the VMRU individually.
- Only registered vehicle mechanics with valid registration may participate, each not more than once in each quiz. If you have already submitted your answers at the VM Learning Station, submission by post, fax or email is not necessary.
- If there are duplicate submissions, only the last answers submitted before the deadline will be accepted.
- The decision of the VMRU on the quiz will be final.
- The correct answers will be announced in the next issue of the RVM Newsletter.

The answers for RVM Newsletter Issue No. 40 are as follows:

Question	1	2	3	4	5
Answer	B	C	D	D	D

12. Training Institutes

Providing Continuing Professional Development Courses for Vehicle Mechanics (in random order)

Name of Training Institute	Website/Contents	Enquiry Tel. No.	QR Code
Traffic Services Employees Association	http://www.facebook.com/tseahk	2575 5544	
Pro-Act Training and Development Centre (Automobile)	<p>http://www.proact.edu.hk/automobile</p> <p>Certificate in Vehicle Mechanical Repair#, a programme run by the Pro-Act Training and Development Centre (Automobile) may serve as another means for qualifying as registered vehicle mechanics. Mechanics who are interested in enrolling in the above programme may visit the website of the Centre.</p> <p># For details and latest developments of the programme, the information issued by the Pro-Act Training and Development Centre shall prevail.</p>	2449 1310	
The Institute of the Motor Industry Hong Kong	<p>http://www.hkimi.org.hk</p> <p>The Institute of the Motor Industry Hong Kong (IMIHK), formerly known as the Institute of the Motor Industry (IMI) - Hong Kong Branch, brings the mission and vision of the IMI to the Hong Kong automobile industry. After the reunification in 1997, the IMI - Hong Kong Branch applied to be renamed the IMIHK in Hong Kong. Eligible members of the trade are welcome to join the IMIHK or enroll in its courses or talks.</p>	2625 5903	
Hong Kong Vehicle Repair Merchants Association Limited	https://www.facebook.com/HKVRMA/	2399 7977	
Hong Kong Vehicle Repairing Industry Employee General Union	http://www.vrunion.hk	2393 9955	
Occupational Safety and Health Council	http://www.oshc.org.hk	2311 3322	
The Society of Operations Engineers (Hong Kong Region)	http://www.soe.org.hk	2617 0311	
Qualifications Framework recognised courses	http://www.hkqr.gov.hk	2836 1700	

Gentle Reminder

The contents in each issue help you catch up on the development of the registration schemes and enhance the quality of service. Please stay tuned! Each issue is available for downloading on the EMSD website:

http://www.emsd.gov.hk/en/supporting_government_initiatives/registration_scheme_for_vehicle_maintenance/publications_and_circulars/rvm_newsletter/index.html



For enquiries on the contents of the RVM Newsletter, please contact the VMRU of the EMSD.

Fax No.: 3968 7646

E-mail: vmru@emsd.gov.hk

Tel. No.: 2808 3545

WhatsApp: 9016 3185

Members of the Editorial Working Group:

Mr YIP Sui-pong (Chief Editor), Mr YIP Lai-hing, Mr CHAN Lap-yan, Mr WONG Lik-kuen, Mr CHEUNG Kam-hung, Mr CHUI Hau-leung, Mr CHAN Kwok-tin, Mr WONG Chi-hang, Mr MOK Kin-yue, Mr CHAN Tung and the Vehicle Maintenance Registration Unit.