

Impact of the Development of Electric Vehicles on the Vehicle Maintenance Trade in Hong Kong

Contents

- (2-3) Impact of the Development of Electric Vehicles on the Vehicle Maintenance Trade in Hong Kong
- (4-5) How to Properly Handle and Control Noise
- (6-7) Latest Updates of Vehicle Maintenance Registration Unit “VM Learning Station” Officially Launched
- (8-9) Latest Updates of Vehicle Maintenance Registration Unit “Vehicle Maintenance Easy” — A New Vehicle Maintenance Service Information Website
- (10) Latest Developments of the Registration Schemes
- (11) Prize Quiz Issue No.37
- (12) Training Institutes Providing Continuing Professional Development Courses for Vehicle Mechanics

2-3. Impact of the Development of Electric Vehicles on the Vehicle Maintenance Trade in Hong Kong

Outlook of Global and Hong Kong Electric Vehicles

Over the past decade, global electric vehicle (EV) technology has made tremendous progress and car sales have also soared. As shown in Figure 1, the number of EVs worldwide has grown exponentially over the last decade. The number of EVs in the Mainland accounts for a considerable proportion.

Fig1: Stock of global electric passenger vehicles, 2010-2020 (Source: Global EV Outlook 2021^[1])

As regards Hong Kong, according to the Transport Department's Monthly Traffic and Transport Digest^[2], the total number of licensed vehicles in Hong Kong is 811 186 (including all classes of vehicle, such as private cars, motorcycles, light good vehicles, etc., as defined by the Transport Department) as at the end of December 2021. Among these vehicles, 27 269 are pure EVs, accounting for 3.36%. Compared with 0.023% at the end of 2010, the proportion of pure EVs in Hong Kong has grown at an average annual rate of 0.33% over the past decade.

In response to global climate change, electrification of transport system has become a global trend. The Government is determined to improve air quality and develop Hong Kong into a smart city, and at the same time, a target of striving for attainment of carbon neutrality before 2050 has been set. To reach these goals, promoting the use of EVs is a very vital measure. The Steering Committee on Promotion of Electric Vehicles chaired by the Financial Secretary has been actively promoting the use of EVs. After consulting the Committee and other stakeholders, the Government has formulated the Roadmap on Popularisation of Electric Vehicles to comprehensively strengthen the efforts to push ahead the use of EVs and make preparation on all fronts to meet the new era of rapid and wide adoption of EVs, advancing towards zero vehicular emissions before 2050.

The two targets set in the Roadmap on Popularisation of EVs have a significant impact on the proportion of EVs in Hong Kong. One is to "stop new registration of fuel-propelled private car, including plug-in hybrid vehicles, in 2035 or earlier". The other is "to explore the possibility of stopping the renewal of licences for fuel-propelled vehicles before 2050 to tie in with Hong Kong's target to achieve carbon neutrality by 2050". In terms of the distribution of types of vehicle in Hong Kong in 2021, private cars accounts for more than 70%. Therefore, the target of stopping new registration of fuel-propelled private cars in 2035 or earlier will help promote the popularisation of EVs in Hong Kong as a whole. Since striving for attainment of carbon neutrality by mid-century is the core policy of Hong Kong, the Mainland as well as other countries around the world, it is therefore expected that the number and proportion of traditional fuel-propelled vehicles in Hong Kong will decline significantly in 2050 or earlier.

1 IEA, Global electric passenger car stock, 2010-2020, IEA, Paris <https://www.iea.org/data-and-statistics/charts/global-electric-passenger-car-stock-2010-2020>

2 Transport Department's Monthly Traffic and Transport Digest https://www.td.gov.hk/en/transport_in_hong_kong/transport_figures/monthly_traffic_and_transport_digest/index.html

Repair and Maintenance of Electric Vehicles

At present, maintenance services of EVs in Hong Kong are mainly provided by the manufacturers' service centres or maintenance workshops designated by their dealers. There are two reasons contributing to this: firstly, economic factors. Other than the manufacturers' service centres or their designated maintenance workshops, owners may also choose their preferred vehicle maintenance workshops to carry out the repair and maintenance work for their EVs. To master the skills for EV maintenance, non-designated repair workshops can access the repair manuals of individual brands through paid subscriptions. However, as mentioned earlier, the share of EVs in Hong Kong is still at a relatively low level, and the overall demand for repair and maintenance services is small. Where there is insufficient economic incentives, fewer non-designated maintenance workshops will be willing to pay the subscription fee for the repair manuals for carrying out maintenance services for EVs.

Secondly, repair and diagnostic equipment issues. Although individual EV brands will allow non-designated maintenance workshops to access their repair manuals, their dedicated electronic diagnostic equipment and tools are currently available only to designated maintenance workshops, due to rights and network security concern. Without the support of dedicated electronic diagnostic equipment and tools, non-designated maintenance workshops may not have the required methods and skills to carry out maintenance services for EVs.

With the increasing number and market share of EVs, the provision of vehicle maintenance services cannot solely rely on dealers and car manufacturers in future. Subject to economic and environmental factors, it is believed that an increasing number of non-designated maintenance workshops will provide maintenance services for EVs. Regarding the manpower of EV maintenance services, the Roadmap on Popularisation of EV has discussed the training of new professionals and maintenance personnel to prepare for the popularisation of EV maintenance. It is equally important to provide opportunity for existing vehicle mechanics to gain knowledge of EV maintenance and upgrade their skill set. The Roadmap on Popularisation of EVs also mentioned software and diagnostic systems, repair manuals and other documents and information related to maintenance work and vehicle parts. EV manufacturers will share more resources and information on professional EV maintenance with the vehicle maintenance trade with a view to preparing for the rising demand for EV maintenance needs in future.

Hong Kong Productivity Council

4-5. How to Properly Handle and Control Noise

To promote green messages to the trade in an innovative and interesting way, the Environmental Protection Department (EPD) has created a series of five videos which will be introduced in this newsletter. The third video presented is about noise nuisance of vehicle repair workshops. The source of noise generally comes from noisy work procedures, such as testing and tuning of engines, hammering and knocking during welding and vehicle positioning, as well as using air compressors and pneumatic tools.

People respond differently to the same level of noise. However, the public will be affected widely if the noise exceeds a certain level. Noise can cause nuisance and stress and may affect the quality of life and interfere with daily activities, such as disturbing rest and sleep, preventing students from doing homework, interrupting TV watching and phone conversation, and thus affecting the image of individual workshop and even the trade as a whole.

Here are some of the common noise-generating equipment used in workshops:

Mobile dust collector Mobile grinding dust collector Air compressor

How should noise be properly controlled? Please scan the QR code below to watch the video:



As seen from the video, trade practitioners should pay attention to the following:

- Prevention is the best solution. Avoid setting up workshops in the vicinity of residential areas or places that are likely to cause environmental nuisance.
- Noisy procedures, such as tuning of engines, using compressed air and pneumatic tools, and hammering and knocking vehicle bodies, should be carried out before 7:00 pm on weekdays.
- Noisy procedures should be carried out in indoor workshops and doors should be closed as far as practicable.
- Tuning of engines should not be conducted nor pneumatic tools be used in open public places.
- Air compressors should be installed indoors.
- Avoid hammering when loosening the brake drums.

The Noise Control Ordinance (Cap. 400) regulates excessive noise from industrial, commercial, trading or business premises (including vehicle maintenance workshops) to avoid causing nuisance to nearby residents. In most urban areas, the acceptable noise level is 65 dB(A) in general. If the acceptable noise level is exceeded, the Environmental Protection Department may issue a Noise Abatement Notice (NAN) to vehicle workshops. Upon receipt of the NAN, the person-in-charge of the vehicle workshop must abate the noise in accordance with the requirements of the NAN. Failure to comply with any requirements of the NAN is an offence. The person concerned is liable upon conviction to a fine of up to \$200,000, and a fine of \$20,000 for each day during which the offence has continued. Noise from public places (such as

road side) is also regulated under the Noise Control Ordinance and is handled by the Police in accordance with the law. If the business of the workshop leads to the above-mentioned crimes, the directors of the workshop may be personally liable for future violations in the workshop. Therefore, the management should implement a good and effective management system to prevent the violation of relevant laws by making excessive noise.

Please visit the following link for more relevant information at the EPD's dedicated webpage "Green Garage" : <https://www.epd.gov.hk/epd/english/greengarage/index.html>.



Environmental Protection Department

The Government of the Hong Kong Special Administrative Region

6-7. Latest Updates of Vehicle Maintenance Registration Unit

” VM Learning Station” Officially Launched

The Vehicle Maintenance Registration Unit (VMRU) has been creating online quizzes with Google Form since February 2020 and has set up the Online Self-Learning Continuing Professional Development (CPD) Platform using Google Sites in early 2021 which serves as a self-learning pathway for registered vehicle mechanics (RVMs) experiencing difficulties in pursuing continuing professional development under the pandemic and a pathway for continuing professional development for mechanics wishing to apply for registration. The platform helps avoid the gathering of crowds and enables mechanics to allocate their CPD time more effectively. It is well-received by the mechanics and the activities held received overwhelming responses. Lots of feedback has also been received from mechanics. Thanks to the unwavering support of the Labour Department, Occupational Safety and Health Council, Environmental Protection Department and Hong Kong Productivity Council for providing learning materials, a wide array of courses is provided to cater for the needs of mechanics. After receiving feedback from various parties and learning materials from other departments for expanding the variety of courses, the CPD platform has been upgraded to a new platform named “VM Learning Station”, which will continue to provide a pathway for continuing professional development for mechanics. The “VM Learning Station” has commenced operation in March 2022, providing one-stop services including quiz management, consolidation of CPD records and linkage to the processing system for RVM application. The new system facilitates record-keeping of CPD activities by mechanics and simplifies the submission of application documents. Through the one-stop platform, the VMRU will strengthen the collaboration with relevant trade organisations by providing mechanics a means for obtaining latest CPD information, uploading CPD records issued by different organisations, thus developing the platform into a virtual interactive training center for the trade. We call on all vehicle mechanics, whether RVMs or mechanics accumulating CPD hours for registration, to register on the new platform. Apart from continuing professional development, vehicle mechanics can also consolidate their CPD hours on the platform for easy access.

Please visit the following website or scan the QR code to access the “VM Learning Station”. You may browse and take the CPD courses after registration.

<https://vmcpd.emsd.gov.hk/>



An instructional video on registering on the “VM Learning Station” website is available for your reference:

<https://youtu.be/qMWIKweMYGg>

Please see below the process of registering on the “VM Learning Station” app with an Android smartphone for demonstration purpose:

1. Go to the home page of “VM Learning Station” and click the menu button on the top right corner.
2. Click the “Register” button on the bottom left corner.
3. Enter your personal information as requested on the page. Then scroll down the page.
4. Browse to the bottom and enter the information as requested on the page, tick the box next to “I agree and accept Personal Information Collection Statement” , and then click the “Create” button.
5. Once you have successfully registered, you will be redirected to the confirmation page and will receive an account activation e-mail.
6. Upon receipt of the account activation e-mail, open the e-mail and click “Here” to activate the account.
7. After clicking “Here” in the e-mail, you will be redirected to the above page. Click “Please click here to login” .
8. After being redirected to the login page, enter your registered e-mail address, password and the captcha code. Then click the “Login” button.
9. Upon successfully logged in, your CPD hours will be shown on the page. Scroll down for the latest information.
10. The latest information includes self-learning courses and talks.
11. Apart from browsing the latest information, you may also click “X” on the top right corner for other details or personal settings.

8-9. Latest Updates of Vehicle Maintenance Registration Unit

” Vehicle Maintenance Easy” - A New Vehicle Maintenance Service Information Website

How to attract customers to your vehicle maintenance workshop without spending on advertising? The answer is simple. The EMSD's new website can help. “Vehicle Maintenance Easy”, a new website providing information on registered vehicle maintenance workshops (RVMWs), has been launched in February 2022. The new website shows an array of information on RVMWs in the form of a map. Apart from the existing information such as the name, registration number, address and contact number of the RVMW, new information such as type of vehicle serviced, type of service, opening hours and photos of the RVMW have been added. Route planning function is also provided to show the route from the owner's current location to the selected workshop, making it easier for owners to search for a suitable workshop. The “Vehicle Maintenance Easy” is informative and more effective than placing advertisements, and it is free of charge.

RVMWs interested in posting their workshop information on the “Vehicle Maintenance Easy” may contact the VMRU by telephone (2808 3545) or e-mail (vmru@emsd.gov.hk).

Please visit the following website or scan the QR code to access the “Vehicle Maintenance Easy” for information on RVMWs.

<https://vme.emsd.gov.hk/en/search>



Please see below the process of searching for a RVMW in list view on the “Vehicle Maintenance Easy” app with an Android smartphone for demonstration purpose:

1. Go to the home page of “Vehicle Maintenance Easy” and click the “List View” button on the upper right corner.
2. Scroll down for the information of all RVMWs. Click the “Detail” button to browse further details of the selected workshop.
3. Click the ” Route Click here” button to open Google Maps.
4. Google Maps will show the best route from the owner's current location to the selected workshop.
5. Return to “Vehicle Maintenance Easy” to continue browsing type of vehicles serviced, type of services, opening hours and registration expiry date of the selected workshop.

Please see below the process of searching for a RVMW in map view on the “Vehicle Maintenance Easy” app with an Android smartphone for demonstration purpose:

1. Go to the home page of “Vehicle Maintenance Easy” and click the “Map View” button on the upper left corner.
2. Pinch or spread two fingers on the phone screen to zoom out or in on the map, swipe up or down, left or right to search for the suitable workshop. Scroll down for workshop information.
3. Workshop information includes photo, contact number and registration number of the selected workshop. Click the “Detail” button to browse further details of the selected workshop.
4. Click the ” Route Click here” button to open Google Maps.
5. Google Maps will show the best route from the owner's current location to the selected workshop.
6. Return to “Vehicle Maintenance Easy” to continue browsing type of vehicles serviced, type of services, opening hours and registration expiry date of the selected workshop.

10.Latest Developments of the Registration Schemes

1. Registered vehicle mechanics who have switched to work in another vehicle maintenance workshop should notify the 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 mechanics	10 303 Note1
Number of registered vehicle mechanics (as at end-April 2022)	8 215

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 2022)	2 066

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

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

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

Reply Slip

I/My company would like to receive the RVM Newsletters and other information leaflets by
 e-mail / WhatsApp

Please provide the relevant contact details for the above selected means of communication:

Name: _____ Vehicle Mechanic Registration No.: VM_____

E-mail address: _____ WhatsApp: _____

The electronic version of the RVM Newsletter 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

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.

Upgrading of the Online Self-learning Continuing Professional Development Platform

The VMRU has completed the upgrading of the CPD platform to provide a better self-learning experience for vehicle mechanics. To meet development needs in the future, the new platform “VM Learning Station” was launched in March 2022 to replace the existing platform.

Mechanics who have already registered on the CPD platform are advised to register on the new platform “VM Learning Station” as soon as possible to facilitate the transfer of CPD records to the “VM Learning Station”. The “VM Learning Station” is constantly being updated, please visit regularly for updates.

Please visit the following website or scan the QR code to access the “VM Learning Station” for latest news or announcements.

<https://vmcpd.emsd.gov.hk/>



11. Prize Quiz Issue No.37

Q1. Which two targets set out in the Roadmap on Popularisation of Electric Vehicles will have a significant impact on the proportion of electric vehicles in Hong Kong?

- A. To stop new registration of fuel-propelled private cars, including hybrid vehicles, in 2035 or earlier
- B. To explore the possibility of stopping the renewal of licences for fuel-propelled vehicles before 2050 to tie in with Hong Kong's target to achieve carbon neutrality by 2050
- C. Both A and B
- D. Neither A nor B

Q2. At present, maintenance services of electric vehicles in Hong Kong are mainly provided by the manufacturers' service centres or maintenance workshops designated by their dealers. Which of the following is/are the reason(s) contributing to this?

- A. Economic factors
- B. Repair and diagnostic equipment issues
- C. Both A and B
- D. Neither A nor B

Q3. When should testing and tuning of engines be conducted to reduce noise nuisance?

- A. Before 7:00 pm on weekdays
- B. After 7:00 pm on weekdays
- C. Before 7:00 pm on holiday
- D. Any time

Q4. Which of the following ordinances regulate noise nuisance from vehicle workshops?

- A. Summary Offences Ordinance
- B. Noise Control Ordinance
- C. Road Traffic Ordinance
- D. Occupational Safety and Health Ordinance

Q5. When was the Online Self-learning Continuing Professional Development Platform "VM Learning Station" launched?

- A. November 2021
- B. December 2021
- C. January 2022
- D. March 2022

How to participate (Issue No.37)

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 fax (3968 7646) or e-mail (vmru@emsd.gov.hk).



Deadline: 30 April 2022

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. 36 are as follows:

Question	1	2	3	4	5
Answer	B	C	A	C	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	<p>http://www.oshc.org.hk</p> <p>The course of Safe Handling of Chemicals aims to provide employees with basic knowledge of the safe handling of chemicals. The course content includes hazards of chemicals, labelling of chemicals, safety precautions, personal protective equipment, emergency procedures, etc. For more course</p>	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:



https://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

Members of the Editorial Working Group:

Mr YIP Sui-pong (Chief Editor), Mr YIP Lai-hing, Ms SHAR Wing-suen, Mr WONG Lik-kuen, Mr CHEUNG Kam-hung, Mr CHEUNG Kam-fai, Mr WONG Koon-wai, Mr SHUM Cheuk-hung and the Vehicle Maintenance Registration Unit