



KEMENTERIAN PENGANGKUTAN
MALAYSIA

Introduction of Vehicle Type Approval (VTA) System in Malaysia

**AUTOMOTIVE ENGINEERING DIVISION
ROAD TRANSPORT DEPARTMENT (JPJ)
MALAYSIA**

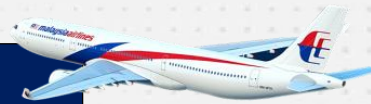
Who am I....?



LAND
DIVISION



AVIATION
DIVISION



MARITIME
DIVISION



ROAD TRANSPORT DEPARTMENT (JPJ)



Regulator for regulate the policy of contruction and use of motor vehicle, driver licence and vehicle registration. As a **lead enforcement body** on motor vehicle and driver in Malaysia based on **Road Transport Act 1987 (Act 333)**

➔ **Automotive Engineering Division - JPJ** : Type Approval Authority to regulate technical specification and contruction of all type motor vehicle.



MALAYSIA INSTITUTE OF ROAD SAFETY RESEARCH (MIROS)

ASEAN ROAD SAFETY CENTRE

To conduct comprehensive research on road safety, and to provide general directions for activities in respect of road safety research.



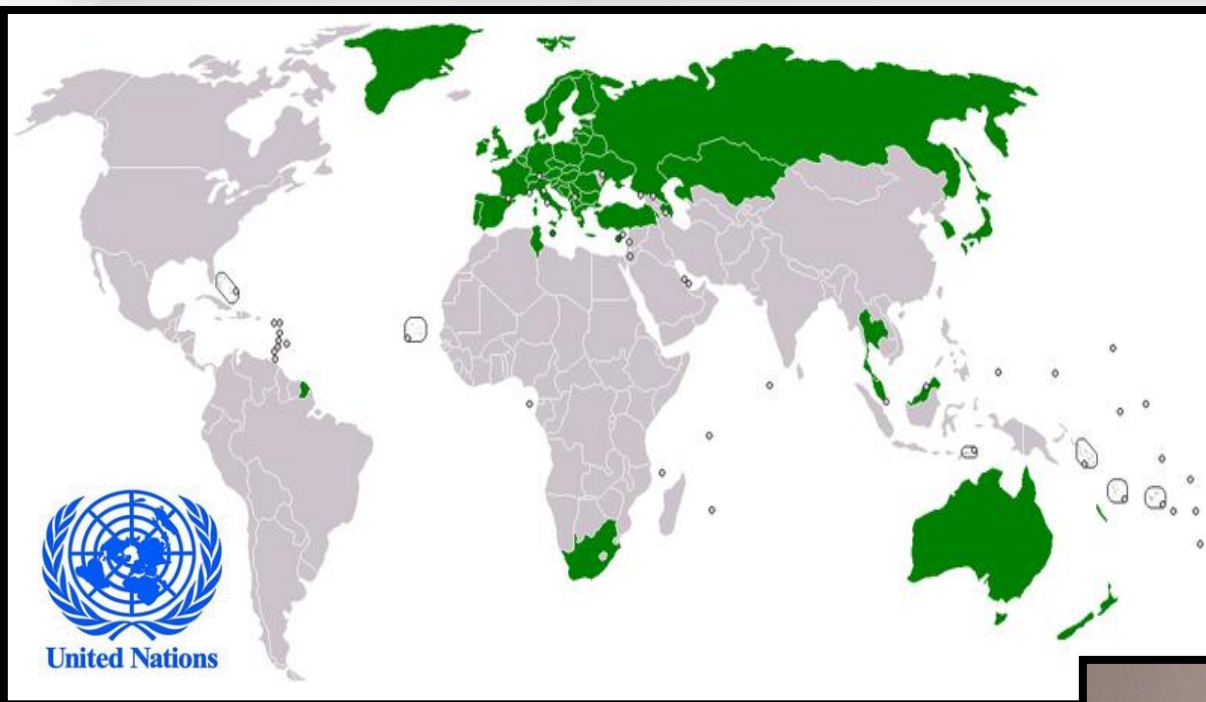
Official Portal

THE LAND PUBLIC TRANSPORT AGENCY (APAD)

Ministry Of Transport Malaysia

planning and defining land-based public transport policies, programs and strategies to enhance the country's public transportation system

Involvement in WP29



MALAYSIA join WP29 on 4th April 2006

**Agreement 1958
(UN Regulations (UNR))**

**Agreement 1998
(UN Global Technical Regulations (GTR))**

World Forum For Harmonisation of Vehicle Regulations (WP29)



7 March 2023 for 189th session of the World Forum for Harmonization of Vehicle Regulations (WP29), Geneva, Switzerland



12 – 16 November 2018 for 176th session World Forum for the Harmonization of Vehicle Regulations (WP29), Geneva, Switzerland

Involvement in WP29

Vehicle & road safety

fatalities index

To reduce the road casualties and fatalities index



Vehicle Safety

To increase the safety features, quality, performance of motor vehicle and its component / system



Governance of vehicle regulation

UN Regulation

To implement the UN Regulations (UNR) & adapt the WP29 framework



ITC

WP29

6 GRs

VTA Procedure

To establish the comprehensive whole Vehicle Type Approval (VTA) Procedure



UNR Certification

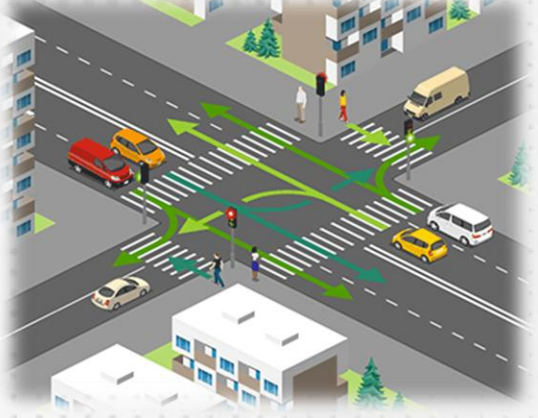
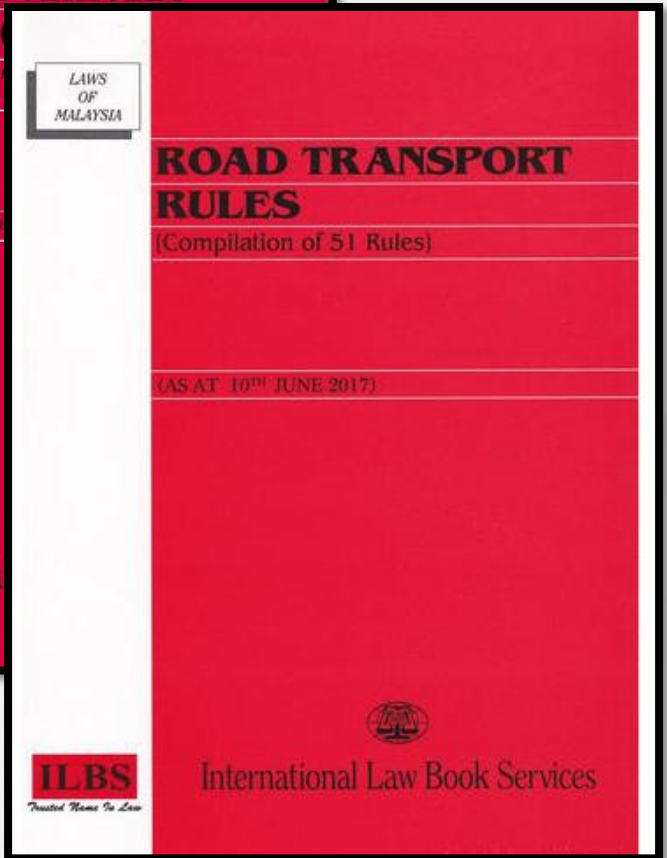
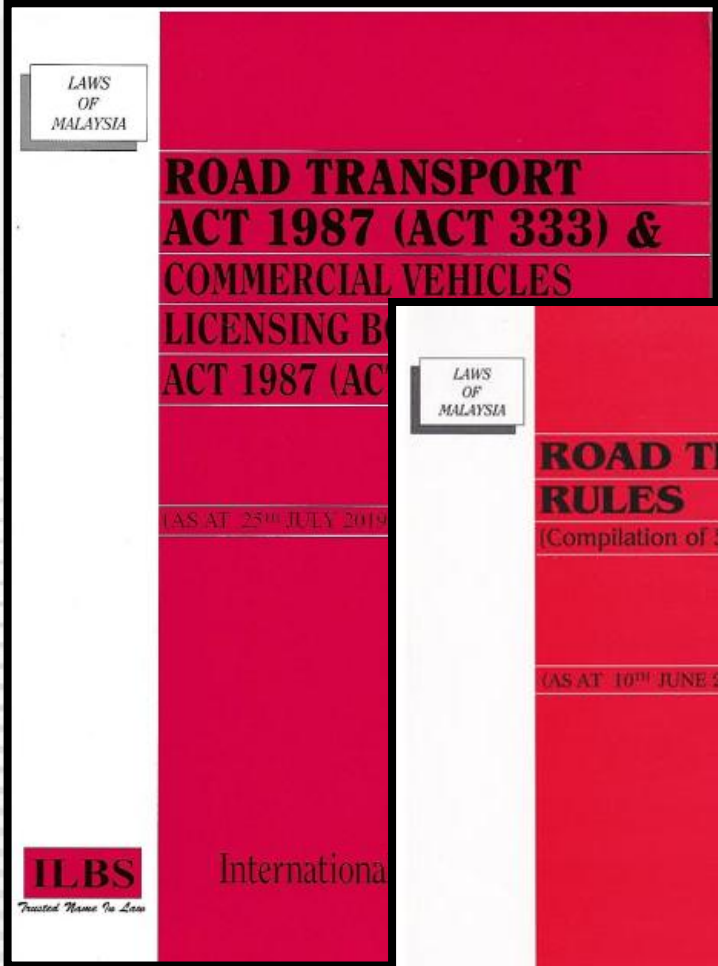
To promote and inculcate vehicle safety concept through UNR certification under United Nations Type Approval



Objective to join WP29

(vehicle regulations & road safety aspect)

Malaysia Motor Vehicle Regulatory



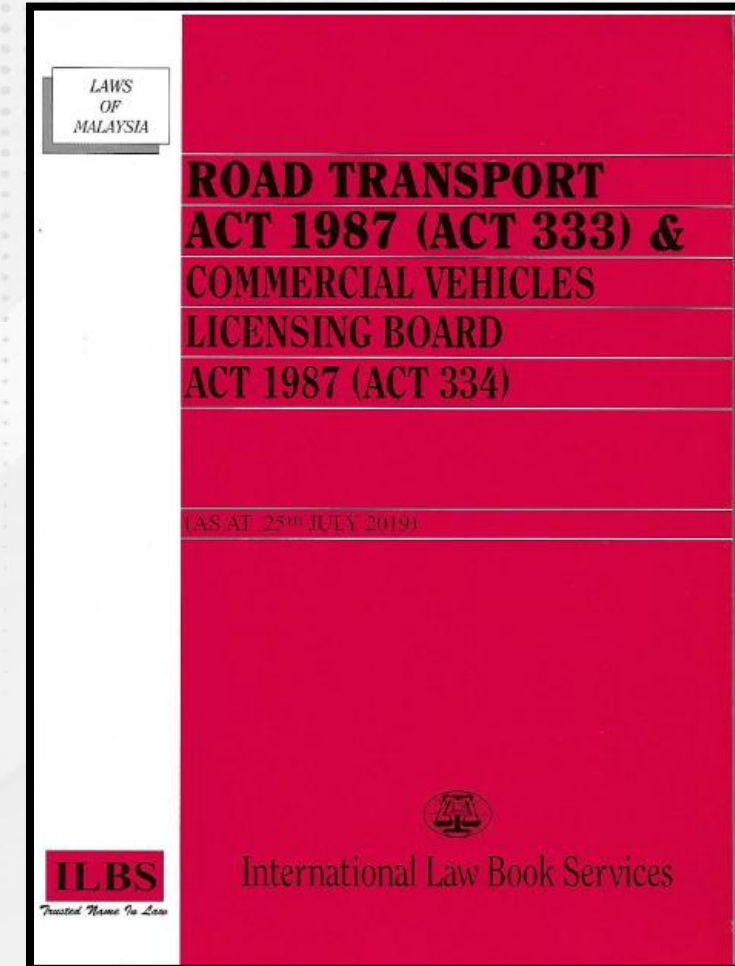
Introduction

Definition under the Road Transportation Act 1987 :-

"vehicle" means a structure capable of moving or being moved or used for the conveyance of any person or thing and which maintains contact with the ground when in motion;

"motor vehicle" means a vehicle of any description, propelled by means of mechanism contained within itself and constructed or adapted so as to be capable of being used on roads, and includes a trailer;

"electric motor vehicle" means any motor vehicle that is propelled by electrical means and does not include an micro mobility vehicle;



Introduction



classified as **Motor Vehicle** under the Road Transport Act 1987

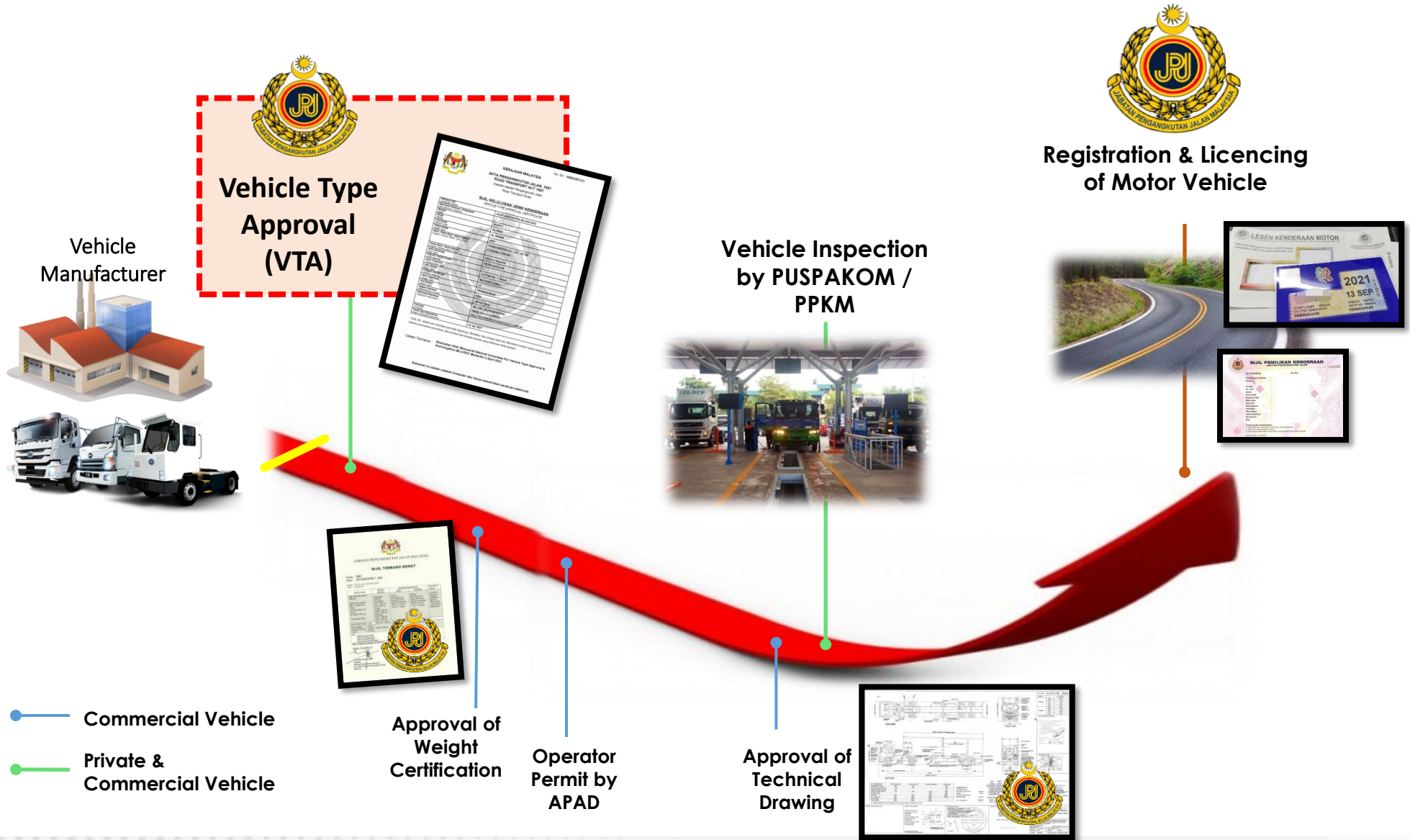
....vehicle specification

....vehicle type....

use of vehicle.....

Who? What?
Why? How?
When? Where?

Introduction



General Overview of Registration and Licensing Flow for Private & Commercial Motor Vehicle

Introduction

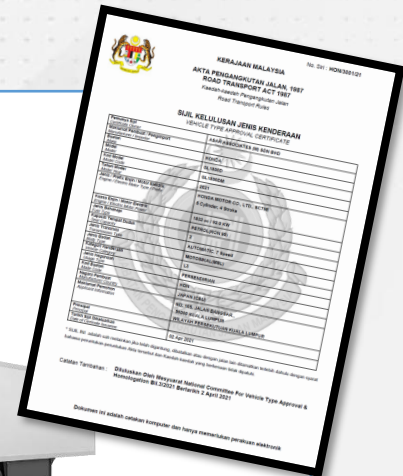
Vehicle Type Approval (VTA) is **mandatory procedure** for each **new model of motor vehicle** before it **marketed and use** in Malaysia

Why??

to confirm the motor vehicle design to comply all the requirements under the **Road Transport Act 1987** and **Road Transport Rules**

Classification of motor vehicle

As classified in the **Section 5, Road Transport Act 1987** :-
motorcycle, motor car, heavy motorcar, tractor, mobile machinery, trailer etc.



Framework of VTA

Vehicle Category	Description
L $(L_1, L_2, L_3, L_4, L_5, L_6, L_7)$	
M (M_1, M_2, M_3)	
N (N_1, N_2, N_3)	
O (O_1, O_2, O_3, O_4)	
T, R, S (agricultural vehicle)	
machinery	

Vehicle classification / category under the Vehicle Type Approval (VTA)

referring to Consolidated Resolution on the Construction of Vehicles (R.E.3) by WP29

Framework of VTA

- ❑ Automotive Engineering Division - JPJ is Type Approval Authority which is responsible on the implementation and enforcement of Vehicle Type Approval (VTA) frameworks in Malaysia.
- ❑ Based on Section 66(1)pp, Road Transport Act 1987 and Rules 9A, Motor Vehicles (Construction & Use) Rules 1959;

Vehicle Type Approval (VTA) System



main scope of
compliance
under VTA

Vehicle Safety
(Active & Passive)

Protection against
unauthorized use

Electro-magnetic
compatibility (EMC)

Exhaust Emission
and Noise

Framework of VTA



vehicle safety

Road-worthiness



Crash-worthiness



Protection against unauthorized use



Electro-magnetic compatibility (EMC)



vehicle pollution



Exhaust Emission



Noise



The main scope which cover under the whole Vehicle Type Approval (VTA)

Framework of VTA - Overview

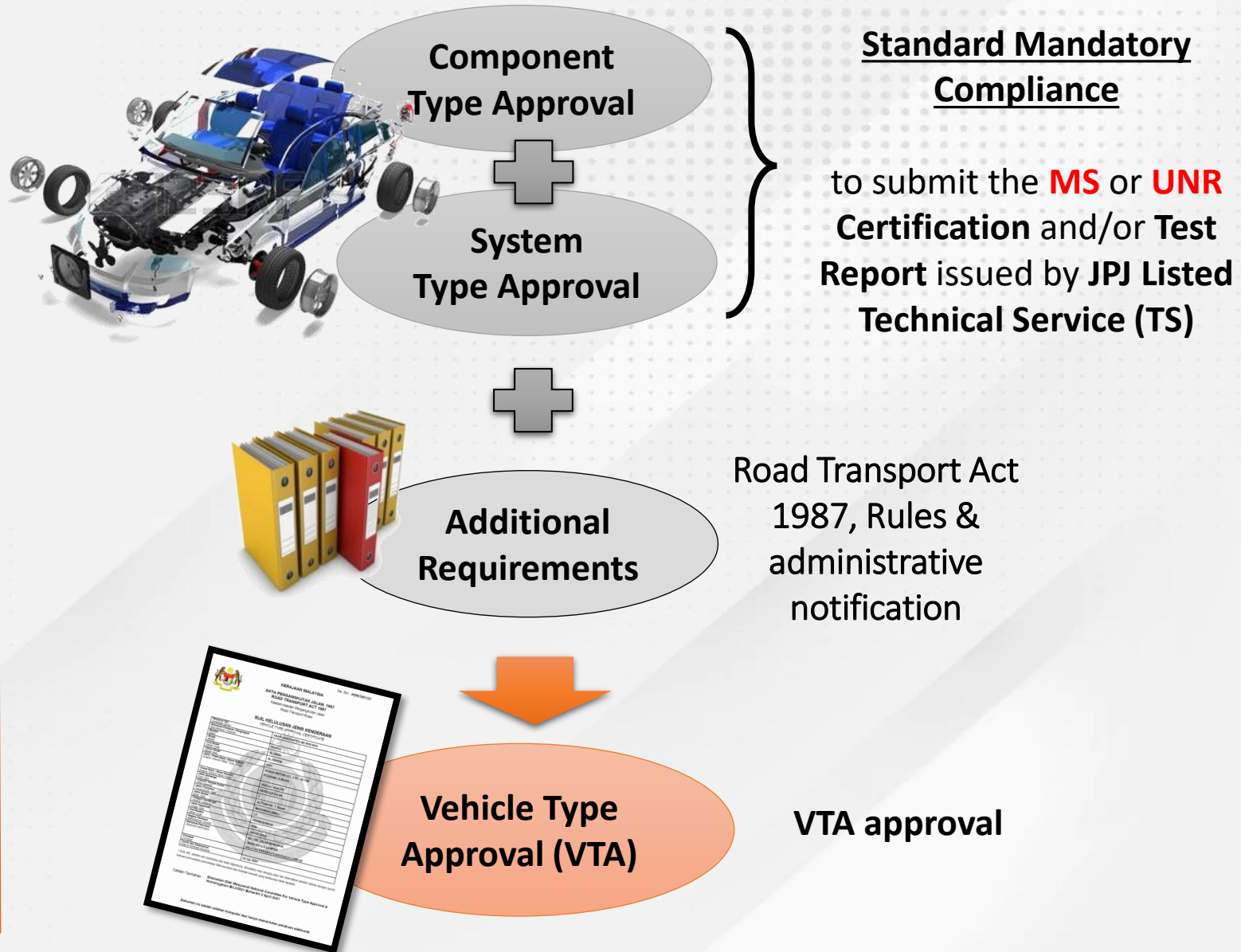
Pre-VTA approval

- ☐ Factory inspection / initial assessment by JPJ



Post-VTA approval

- ☐ e-DAFTAR (vehicle registration system)
- ☐ VTA CoP (conformity of production)
- ☐ VTA Product Labeling
- ☐ Product Recall



Framework of VTA – Overview

(Designated Technical Service (TS) by JPJ)

JPJ have designated 5 (five) Technical Service (TS) as follows :-

Domestic Testing Center

1. SIRIM QAS International Sdn. Bhd.
2. Malaysian Rubber Board (LGM)
3. National Emission Test Center (NETC)



UN for Motorcyclist Helmet

UN for new pneumatic tyre

Exhaust emission



International Testing Center

1. IDIADA Applus
2. TÜV Rheinland (Malaysia) Sdn. Bhd.



Only UN Regulations
gazette under Road
Transport Rules

Road Transport Department of Malaysia (JPJ)
Level 2, Block D4 Complex D,
Federal Government Administrative Office
62620 Putrajaya, Malaysia
Office: +603 - 8886 6420
Fax: +603 - 8890 5000
Email: web@jaja.gov.my
Web: www.jaja.gov.my

MALAYSIA TYPE APPROVAL AUTHORITY

COMMUNICATION CONCERNING

E52

— APPROVAL GRANTED
— APPROVAL EXTENDED
— APPROVAL RESUMED
— APPROVAL SUSPENDED
— PRODUCTION DISCONTINUED

OF A VEHICLE TYPE WITH REGARD TO BRAKING PURSUANT TO
REGULATION NUMBER 134B

Approval number: 13HR-000001 Extension number: —

1. Trade name or mark of the vehicle	: Perodua
2. Vehicle type	: B2
3. Manufacturer's name and address	: Perodua Global Manufacturing Sdn. Bhd. Sungai Choh, Locked Bag No 228 43009 Rawang, Selangor, Malaysia
4. If applicable, name and address of the manufacturer's representative	: n/a
5. Mass of vehicle	
5.1. Maximum mass of vehicle	: 1250kg
5.2. Minimum mass of vehicle	: 895kg
6. Distribution of mass of each axle (maximum value)	: Axle 1: 645kg, Axle 2: 625kg
7. Make and type of brake linings	: Front: JBT NP117 Rear: NISSHINBO C60T140
7.1. Brake linings tested to all relevant prescriptions of annex 3	: Yes

Page 1 of 1

Framework of VTA - Overview



Pneumatic tyre



Safety Glazing Material



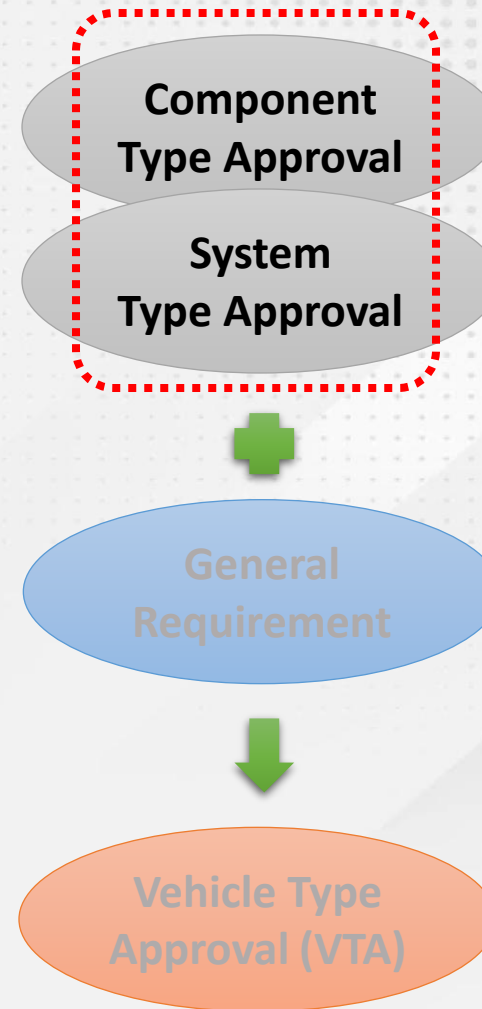
Rear View Mirror



Seat Belt



Lamp



Standard Mandatory Compliance

product compliance (including **System Approval**) with specified standards or regulations (**Malaysian Standards/UN Regulations**) are gazette under Road Transport Rules.

Framework of VTA – Safety Standards Compliance

LAWS OF MALAYSIA

ROAD TRANSPORT RULES
(Compilation of 51 Rules)
(AS AT 10TH JUNE 2017)

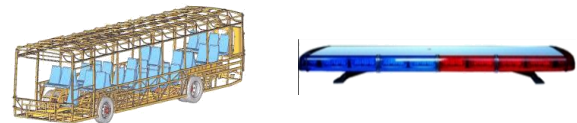


WARTA KERAJAAN PERSEKUTUAN
FEDERAL GOVERNMENT GAZETTE
18 Mac 2024
18 March 2024
P.U. (A) 88

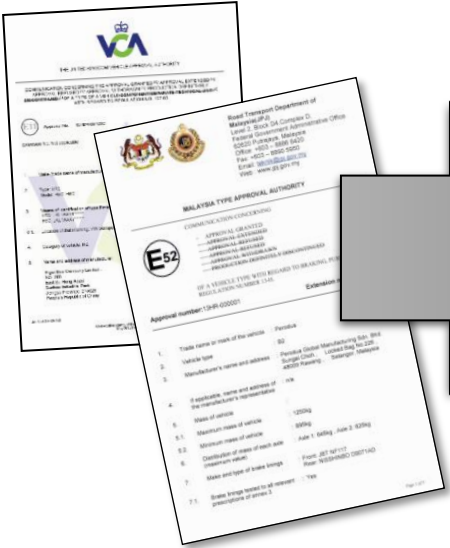
KAEDAH-KAEDAH KENDERAAN MOTOR
(PEMBINAAN DAN PENGGUNAAN) (PINDAAN) 2024

**MOTOR VEHICLES
(CONSTRUCTION AND USE) (AMENDMENT) RULES 2024**

DISIARKAN OLEH/
PUBLISHED BY
JABATAN NEGARA/
ATTORNEY GENERAL'S CHAMBERS



A) United Nations Regulations : 135 UNRs



Mutual recognition of UNR certificates to reduce **technical barrier to trade (TBT)** in automotive sector

B) Malaysian Standard (MS) : 12 MS



Framework of VTA – Safety Standards Compliance

(Current Implementation of ADAS under VTA)

Mandatory item



UN R78 : Braking System : Anti-lock Braking System (ABS)

new motorcycle with 150cc and above by 1 January 2025 on front wheel

UN R140 : Electronic Stability Control (ESC)

new passenger vehicle – category M₁ by 1 July 2020



Mandatory item (if fitted)



UN R130 : Lane Departure Warning System (LDWS)

new passenger vehicle - category M₁ by 1 July 2020

UN R131 : Advanced Emergency Braking Systems (AEBS)

new vehicle category M₂, M₃, N₂ and N₃ by 1 July 2020

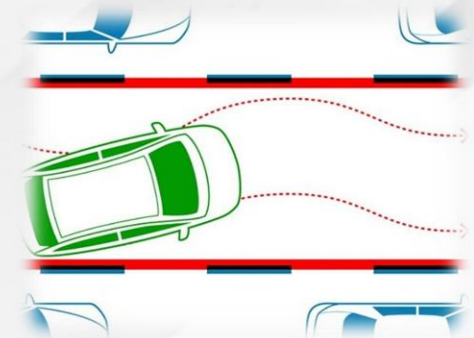


Framework of VTA – Safety Standards Compliance

(Future Implementation of ADAS under VTA)

need further
domestic
industry
consultation

- 1) **UN R139** : Brake Assist Systems (BAS);
- 2) **UN R151** : Blind Spot Information System for the Detection of Bicycles;
- 3) **UN R152** : Advanced Emergency Braking System (AEBS) for M₁ and N₁ Vehicles;
- 4) **UN R157** : Automated Lane Keeping Systems (ALKS);
- 5) **UN R158** : Devices for Reversing Motion and Motor Vehicles with regard to the Driver's Awareness of Vulnerable Road Users Behind Vehicles;
- 6) **UN R159** : The Moving Off Information System for the Detection of Pedestrians and Cyclists;
- 7) **UN R166** : Driver's Awareness of Vulnerable Road Users in Close-Proximity to the Front and Lateral Sides of Vehicles



Framework of VTA – Standard Compliance

(electric motor vehicle)

Rules 9B, Motor Vehicles (Construction & Uses) Rules 1959 :-

1. The electric motor vehicle must have :-
 - ☐ a clear and unmodified **motor serial number** and **chassis number**;
 - ☐ maximum design speed of **over 50 km/h**;
 - ☐ climbing ability over a **20% gradient**;
 - ☐ batteries and wiring systems must be certified by a competent body recognized by the Director General of JPJ;
2. Electric motorcycles must conform to the **MS 2413** or **UN R136** specification;
3. For electric motor vehicle (M & N Category) must comply to the **UN R100**;



18 Mac 2024
18 March 2024
P.U. (A) 88

WARTAKERAJAAN PERSEKUTUAN

*FEDERAL GOVERNMENT
GAZETTE*

KAEDAH-KAEDAH KENDERAAN MOTOR
(PEMBINAAN DAN PENGGUNAAN) (PINDAAN) 2024

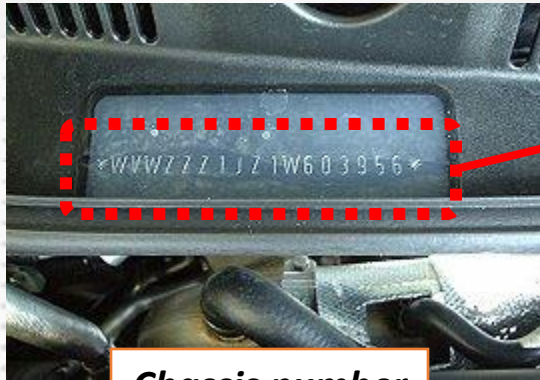
*MOTOR VEHICLES
(CONSTRUCTION AND USE) (AMENDMENT) RULES 2024*

DISIARKAN OLEH/
PUBLISHED BY
JABATAN PEGUAM NEGARA/
ATTORNEY GENERAL'S CHAMBERS

Framework of VTA – Additional Requirement

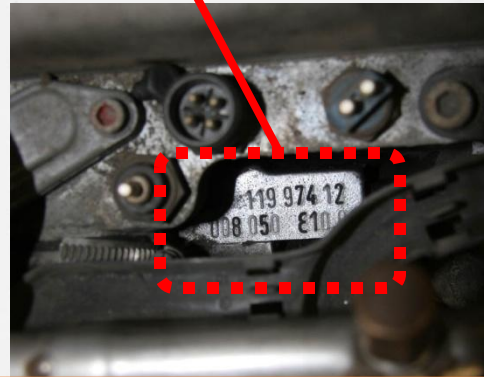
Additional Requirements

Additional requirements listed under Road Transport Act 1987 and Road Transport Rules.

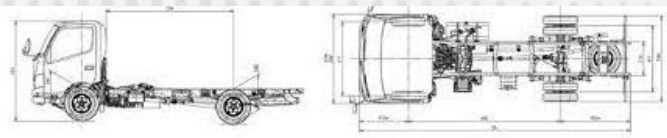


Chassis number

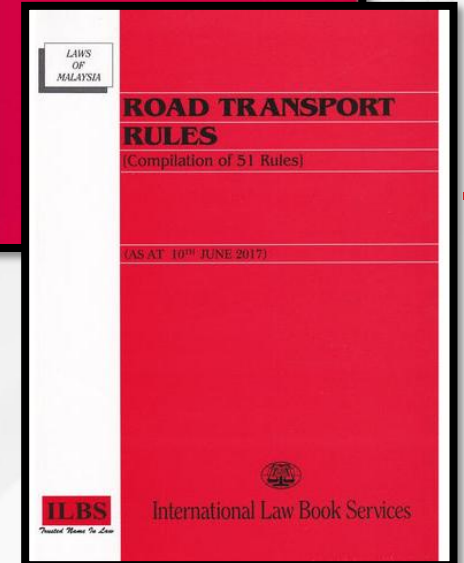
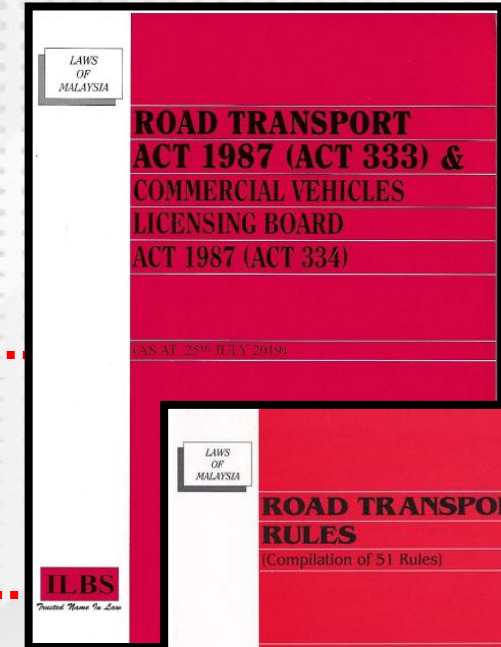
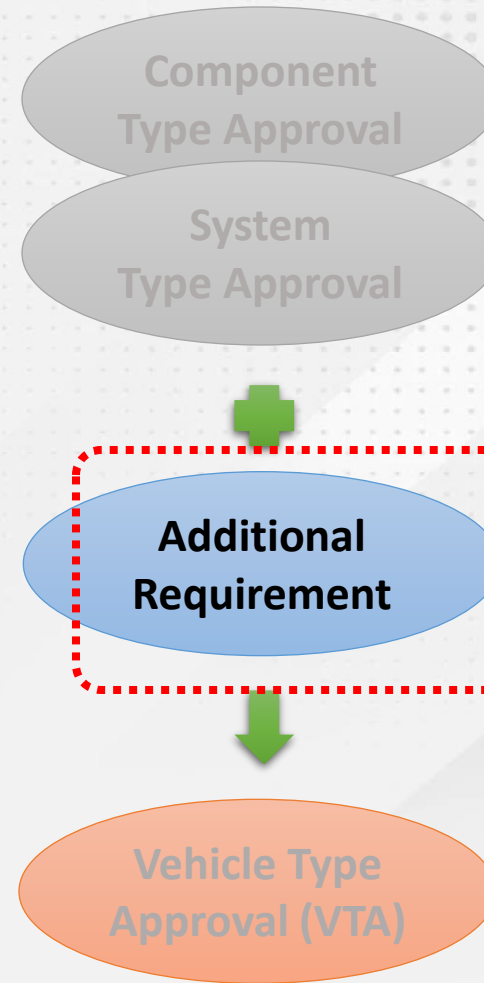
must be punched



Engine / electric motor number



Dimension of vehicle



Framework of VTA – Approval

KERAJAAN MALAYSIA
AKTA PENGANGKUTAN JALAN, 1987
ROAD TRANSPORT ACT 1987
Kaedah-kaedah Pengangkutan Jalan
Road Transport Rules

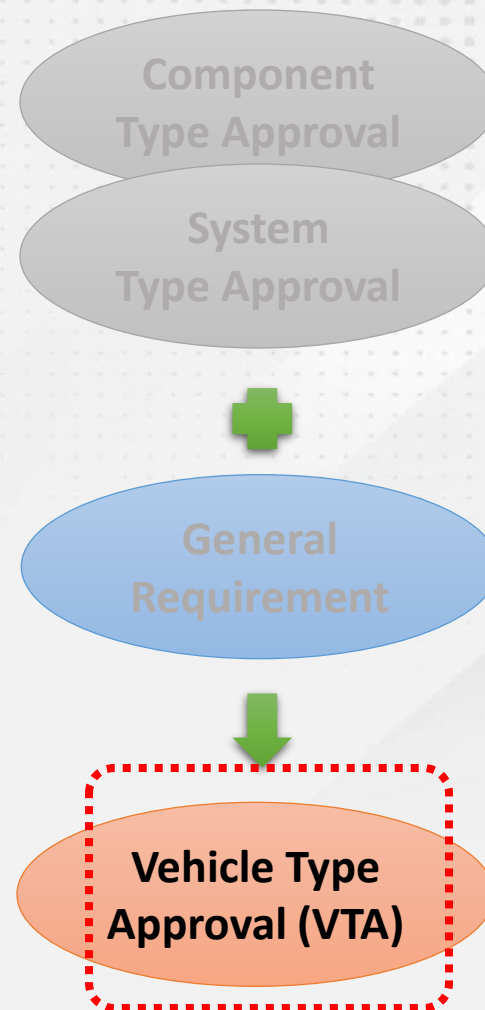
SIJIL KELULUSAN JENIS KENDERAAN
VEHICLE TYPE APPROVAL CERTIFICATE

Pemohon Bil. Certificate Owner	PRIMA MAJU AUTO SDN. BHD.
Maklumat Pembuat / Pengimport Manufacturer / Importer	PRIMA MAJU AUTO SDN BHD
Buatan Make	KIA
Model Model	CARNIVAL 2.2D S11
Kod Model Model Code	HSB2HCSJ
Tahun Model Model Year	2021
Jenis / Prekix Enjin / Motor Elektrik Engine / Electric Motor Type / Prefix	Hyundai or Kia, D4HE 4 Cylinder, 4 Stroke
Kuasa Enjin / Motor Elektrik Engine / Electric Motor Power	2151 cc / 148 KW
Jenis Bahanapi Fuel Type	DISEL
Kapasiti Tempoh Duduk Seat Capacity	11
Jenis Transmisi Transmission Type	AUTOMATIC, 8 Speed
Jenis Badan Body Type	WINDOW VAN(VAN)
Kategori Kenderaan Vehicle Category	M2
Jenis Kenderaan Vehicle Type	PERSENDIRIAN
Kod Binaan Make Code	KIA
Negara Pembuat Manufacture Country	REPUBLIC OF KOREA (SOU)
Maklumat Pemohon Applicant Information	LOT 7, JALAN PELUKIS U1146, TEMASYA INDUSTRIAL PARK, SEKSYEN U1, 40150 SHAH ALAM SELANGOR
Prinsipal Principal	KIA MOTOR CORPORATION
Tarikh Bil. Dikeluarkan Date of Certificate Issuance	22 Nov 2021

* Sijil ini adalah sah melainkan jika telah dipotong, dibatalkan atau dengan jalan lain ditamakkan terlebih dahulu dengan syarat bahawa penuntukan-penuntukan Akta tersebut dan Kaedah-kaedah yang berkenaan tidak dipatuhi.

Catatan Tambahan : Diluluskan oleh mesyuarat National Committee For Vehicle Type Approval & Homologation Bil. 09/2021 bertarikh 22 November 2021.

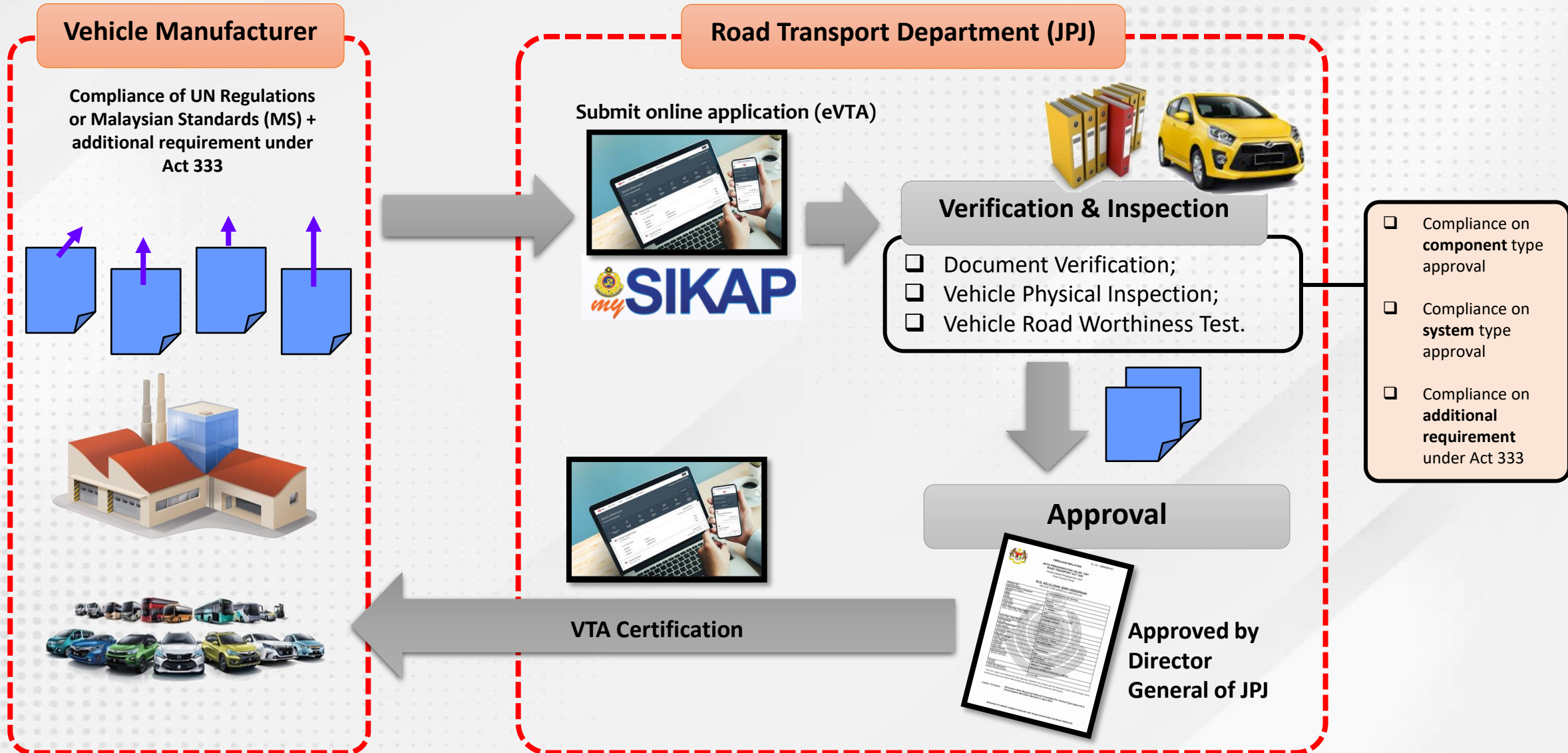
Dokumen ini adalah cetakan komputer dan hanya memerlukan perakuan elektronik



Certification of whole Vehicle Type Approval (VTA)

to confirm the vehicle design have comply with specified standards and all requirement under Act and the vehicle is allowed to register in Malaysia.

Framework of VTA – Submission



Framework of VTA – Online Submission



The screenshot shows the mySIKAP portal homepage. At the top, there is a header with the Malaysian coat of arms and the text "Portal Rasmi Jabatan Pengangkutan Jalan Malaysia". Below this, the mySIKAP logo is prominently displayed. On the left side, there are links for "Pendaftaran Nombor Rujukan" (Registration Reference Number) and "Masalah Mendaftar Masuk" (Login Problem). The main content area features a large red banner with the text "SELAMAT DATANG KE PORTAL RAKAN NIAGA mySIKAP JABATAN PENGANGKUTAN JALAN MALAYSIA". Below the banner, there is a login section with fields for "ID Pengguna" (User ID) and "Kata Laluan" (Password), and a "Daftar Masuk" (Login) button. A red circle highlights the text "Utama | Bantuan Dalam Talian" in the top right corner. A black box with the text "Manual transaksi" points to the login section. At the bottom, there is a footer with various logos and a disclaimer.

Utama | Bantuan Dalam Talian

Manual transaksi

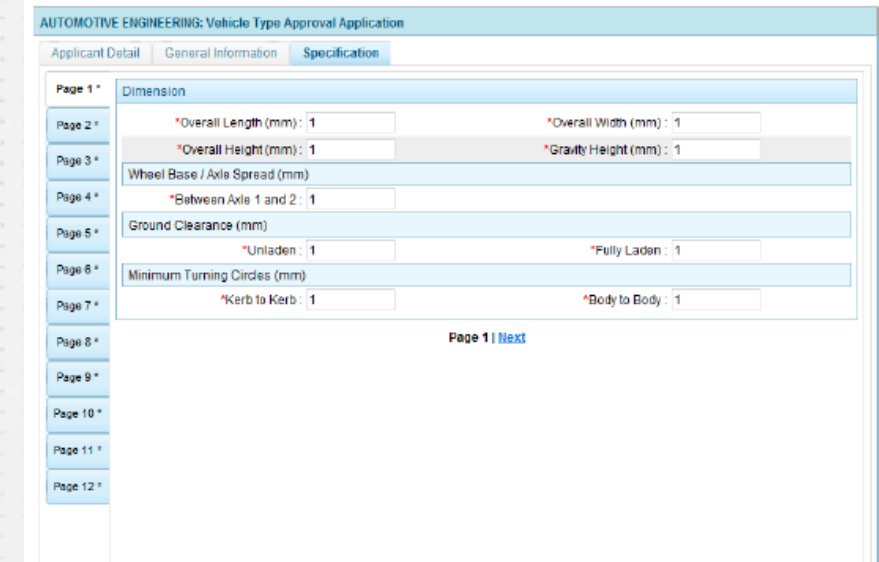
SELAMAT DATANG KE PORTAL RAKAN NIAGA mySIKAP
JABATAN PENGANGKUTAN JALAN MALAYSIA

Pilihan Bahasa:   

Daftar Masuk

ID Pengguna: Kata Laluan:

Keselamatan Dalam Talian
Jangan daftar masuk melalui pautan e-mel yang tidak diketahui / mencurigakan.
Jangan dedahkan ID Pengguna dan kata laluan anda kepada mana-mana pihak.



The screenshot shows the "AUTOMOTIVE ENGINEERING: Vehicle Type Approval Application" form. The form is divided into three tabs: "Applicant Detail", "General Information", and "Specification". The "Specification" tab is currently selected. The form contains various input fields for vehicle dimensions and specifications, including "Overall Length (mm)", "Overall Width (mm)", "Overall Height (mm)", "Gravity Height (mm)", "Wheel Base / Axle Spread (mm)", "Between Axle 1 and 2", "Ground Clearance (mm)", "Unladen", "Fully Laden", "Minimum Turning Circles (mm)", "Kerb to Kerb", and "Body to Body". The form is organized into a table-like structure with multiple rows and columns. A "Page 1 | Next" link is visible at the bottom right of the form.

AUTOMOTIVE ENGINEERING: Vehicle Type Approval Application

Applicant Detail General Information Specification

Page 1 * Dimension

Page 2 * *Overall Length (mm) : 1 *Overall Width (mm) : 1

Page 3 * *Overall Height (mm) : 1 *Gravity Height (mm) : 1

Page 4 * Wheel Base / Axle Spread (mm)

Page 5 * *Between Axle 1 and 2 : 1

Page 6 * Ground Clearance (mm)

Page 7 * *Unladen : 1 *Fully Laden : 1

Page 8 * Minimum Turning Circles (mm)

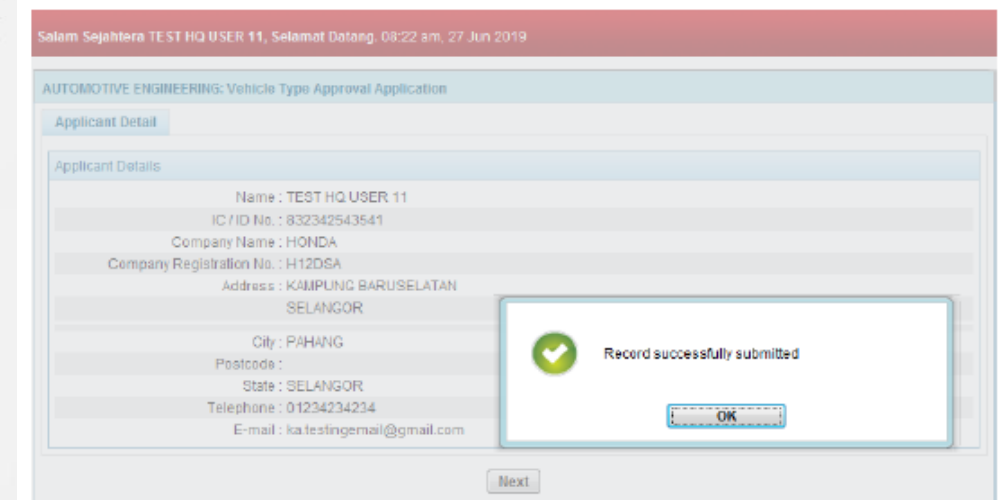
Page 9 * *Kerb to Kerb : 1 *Body to Body : 1

Page 10 *

Page 11 *

Page 12 *

Page 1 | Next



The screenshot shows the "AUTOMOTIVE ENGINEERING: Vehicle Type Approval Application" form, specifically the "Applicant Detail" tab. The form displays the following information: Name: TEST HQ USER 11, IC / ID No.: 832342543541, Company Name: HONDA, Company Registration No.: H12DSA, Address: KAMPUNG BARUSELATAN, SELANGOR, City: PAHANG, Postcode: , State: SELANGOR, Telephone: 01234234234, and E-mail: ka.testingemail@gmail.com. A green checkmark icon and the text "Record successfully submitted" are displayed, along with an "OK" button. A "Next" button is also visible at the bottom right of the form.

Salam Sejahtera TEST HQ USER 11, Selamat Datang, 08:22 am, 27 Jun 2019

AUTOMOTIVE ENGINEERING: Vehicle Type Approval Application

Applicant Detail

Applicant Details

Name : TEST HQ USER 11
IC / ID No. : 832342543541
Company Name : HONDA
Company Registration No. : H12DSA
Address : KAMPUNG BARUSELATAN
SELANGOR
City : PAHANG
Postcode :
State : SELANGOR
Telephone : 01234234234
E-mail : ka.testingemail@gmail.com

Record successfully submitted

OK

Next

- ❑ Start enforced from **1 January 2020**;
- ❑ Enhance the record system of application and approval;
- ❑ Strengthening communication channel between regulator and automotive industries;
- ❑ Each applicant shall have **Registered ID** from JPJ.

Post - Vehicle Type Approval (VTA) system

KERAJAAN MALAYSIA
AKTA PENGANGKUTAN JALAN, 1987
ROAD TRANSPORT ACT 1987
Kaedah-kaedah Pengangkutan Jalan
Road Transport Rules

No. Siri : HON/3001/21

SIJIL KELULUSAN JENIS KENDERAAN
VEHICLE TYPE APPROVAL CERTIFICATE

Pemunya Sijil Certificate Owner	ASAR ASSOCIATES (M) SON BHD
Maklumat Pemohon / Pengimport Manufacturer / Importer	
Buatan Model	
Kod Model Model Code	HONDA
Tahun Model Model Year	GL1800D
Jenis / Prefix Enjin / Motor Elektrik Engine / Electric Motor Type / Prefix	GL1800DM
Kuasa Enjin / Motor Elektrik Engine / Electric Motor Power	2021
Jenis Bahanapi Fuel Type	HONDA MOTOR CO., LTD., SC79E
Kapasiti Tempat Duduk Seat Capacity	6 Cylinder, 4 Stroke
Jenis Transmisi Transmission Type	1832 cc / 93.0 KW
Jenis Badan Body Type	PETROL (RON 95)
Kategori Kenderaan Vehicle Category	2
Jenis Hapusan Usage Type	AUTOMATIC, 7 Speed
Kod Binaan Make Code	MOTOSIKAL (MSL)
Weyara Pembuat Manufacturer Country	L3
Maklumat Pemohon Applicant Information	PERSENDIRIAN
Prinsipal Principal	HON
Tarikh Sijil Dikeluarkan Date of Certificate Issuance	JAPAN (CBU)
	NO. 105, JALAN BANOSAR, 59200 KUALA LUMPUR
	WILAYAH PERSEKUTUAN KUALA LUMPUR
	02 Apr 2021

* Sijil ini adalah sah melainkan jika telah dipantung, dibatalkan atau dengan jalan lain ditamatkan terlebih dahulu dengan syarat bahawa peruntukan-peruntukan Akta tersebut dan Kaedah-kaedah yang berkenaan tidak dipatuhi.

Catatan Tambahan : Diluluskan Oleh Mesyuarat National Committee For Vehicle Type Approval & Homologation Bil.3/2021 Bertarikh 2 April 2021

Dokumen ini adalah cetakan komputer dan hanya memerlukan perakuan elektronik



Vehicle registration information



VTA certificate serial number and other data shall be accurately declared during the initial process of registration of a vehicle through eDaftar (MySIKAP JPJ) system

INTEGRATION



The diagram features a central lightbulb icon within a blue circle. Six lines radiate from this central circle to six smaller icons: a magnifying glass (top-left), a speech bubble (top-right), a bar chart (bottom-right), a gear (bottom-left), a small circle (bottom), and a small circle (top-left). The background is a light blue grid.

New vehicle inspection



VTA Product Labeling



VTA Product Labeling

- ❑ Enforced since 1 January 2014 for each new in-production vehicle;
- ❑ As identification marking for vehicle model which have been type approved;
- ❑ To provide information prior the serial number of VTA Certification;
- ❑ Has become mandatory item under vehicle inspection activities conducted by PUSPAKOM since 1 July 2014;

- ☐ Enforced since 1 January 2014 for each new in-production vehicle;
- ☐ As identification marking for vehicle model which have been type approved;
- ☐ To provide information prior the serial number of VTA Certification;
- ☐ Has become mandatory item under vehicle inspection activities conducted by PUSPAKOM since 1 July 2014;

VTA – Initial Assessment (IA) & Conformity of production (CoP)

- ❑ to evaluate the quality management system and to inspect the related type approval documents on VTA certificate holder including the ability to maintain quality of manufacturing or assembling of motor vehicle and its component in accordance to the specification, performance and marking requirement outlined in the type approval documentations;
- ❑ each 3 years, JPJ will conduct inspection at factory to verify the quality management system is maintain properly;
- ❑ inspection by JPJ officer at factory or motor vehicle dealer to be conducted on random or periodically basis;



Framework of Post VTA – Recall

Recall mechanism

to retrieving, replacing or repairing any damage or defects to any part of the motor vehicle or its component due to its design or specification or manufacturing imperfection that may pose any risk to hazards to motor vehicle owners, passengers and other road users as well as the risk of pollution to the environment.

VTA certificate holder shall ensure to submit notification to JPJ prior on each recall activities on related model of vehicle.



Conclusion

- ☐ **JPJ as Regulator or Approval Authority in Malaysia** which is responsible to regulate the technical specification of motor vehicle, enforcement body on motor vehicle & driver and registration of motor vehicle & driver;
- ☐ **JPJ is a lead agency as Type Approval Authority** on the implementation and enforcement of VTA frameworks in Malaysia;
- ☐ Malaysia is a **Contracting Party under Forum WP29** and adopt the **United Nations Regulations (UNR)** as mandatory standard and as main benchmark under VTA frameworks.
- ☐ **VTA application shall be submitted to JPJ** before the model of vehicle / component be marketed in Malaysia.
- ☐ VTA procedure only applicable to new motor vehicle for all category of motor vehicle.



THE END THANK YOU



www.jpj.gov.my



JABATAN PENGANGKUTAN JALAN MALAYSIA