GARIS PANDUAN

KELULUSAN JENIS KENDERAAN

(PINDAAN) 2017

DISEDIAKAN OLEH:

BAHAGIAN KEJURUTERAAN AUTOMOTIF

JABATAN PENGANGKUTAN JALAN

Disemak oleh :	Disahkan oleh :	Diluluskan oleh :
(DATO' Ir. HJ. MOHAMAD BIN DALIB) PENGARAH BAHAGIAN KEJURUTERAAN AUTOMOTIF TARIKH : 21/6/ 2017	(DATO' YUSOFF BIN AYOP) TIMBALAN KETUA PENGARAH (OPERASI) JABATAN PENGANGKUTAN JALAN MALAYSIA TARIKH : 3/7/2017	(DATO' SRI NADZRI SIRON) KETUA PENGARAH JABATAN PENGANGKUTAN JALAN MALAYSIA TARIKH : 5/7/ 2017

ISI KANDUNGAN

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1. PENGENALAN

Perkembangan teknologi automotif global menyaksikan pelbagai inovasi terbaru diperkenalkan oleh pengeluar-pengeluar kenderaan dalam usaha untuk menguasai pasaran automotif serantau. Inovasi ini juga bertujuan bagi mempertingkatkan tahap keselamatan dan prestasi kenderaan ke aras yang lebih tinggi.

Seiring dengan perkembangan tersebut, badan-badan organisasi antarabangsa bergiat aktif dalam memperkenalkan standard bagi memastikan kualiti produk automotif yang dihasilkan adalah memenuhi piawaian antarabangsa. Standard ini menjadi rujukan bagi negara-negara maju dan juga yang membangun bagi menentukan hala tuju industri automotif negara mereka.

Malaysia juga tidak ketinggalan dalam pembangunan industri automotif. Selaras dengan Dasar Automotif Nasional, pihak kerajaan menganggotai pertubuhan antarabangsa yang dikenali sebagai *World Forum for Harmonization of Vehicle Regulations* (WP29). Ahli kepada pertubuhan ini bertanggungjawab untuk mengadaptasi peraturan *United Nations* (UN) sebagai penanda aras bagi tahap kualiti produk automotif yang dipasarkan.

Di Malaysia, peraturan UN ini diwartakan secara berperingkat ke dalam Kaedah Kaedah Pengangkutan Jalan dan juga kepada Kaedah-Kaedah lain yang berkaitan. Peraturan ini dilaksanakan melalui proses Kelulusan Jenis Kenderaan (VTA) oleh Bahagian Kejuruteraan Automotif, Jabatan Pengangkutan Jalan Ibu Pejabat.

Proses Kelulusan Jenis Kenderaan (VTA) adalah satu proses yang dijalankan kepada semua model baru kenderaan sebelum proses pendaftaran dibenarkan. Proses ini diperkenalkan bagi mengawal identiti, dimensi, berat, ciri-ciri pembinaan dan spesifikasi sesebuah kenderaan agar menepati semua spesifikasi yang telah ditetapkan di bawah Akta Pengangkutan Jalan 1987 dan Kaedah-Kaedah Pengangkutan Jalan.

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Bagi memastikan proses ini berjalan secara telus dan lancar, jawatankuasa yang dikenali sebagai Jawatankuasa *National Committee for Type Approval* (VTA) *and Homologation* telah ditubuhkan bagi menilai setiap permohonan Kelulusan Jenis Kenderaan yang dibuat bagi memastikan setiap aspek kenderaan tersebut adalah selaras dengan peraturan semasa yang ditetapkan. Jawatankuasa ini dipengerusikan oleh Ketua Pengarah Pengangkutan Jalan Malaysia dan dianggotai oleh pelbagai agensi kerajaan dan swasta yang berkaitan seperti berikut:

1. Kementerian Pengangkutan (MOT)
2. Kementerian Perdagangan Antarabangsa dan Industri (MITI)
3. Kementerian Perdagangan dalam Negeri, Koperasi dan Kepenggunaan (KPDNKK)
4. Suruhanjaya Pengangkutan Awam Darat (SPAD)
5. Jabatan Pengangkutan Jalan (JPJ)
6. Jabatan Alam Sekitar (JAS)
7. Jabatan Kastam Di Raja Malaysia (KASTAM)
8. Jabatan Standard Malaysia (DSM)
9. Jabatan Keselamatan dan Kesihatan Pekerjaan (DOSH)
10. *Malaysian Institute of Road Safety Research* (MIROS)
11. *Standards and Industrial Research Institute of Malaysia* (SIRIM)
12. Pusat Pemeriksaan Kenderaan Berkomputer (PUSPAKOM)
13. Kementerian Kewangan (MOF)
14. Polis Diraja Malaysia (PDRM)

2. RUJUKAN UNDANG-UNDANG

(i) Akta Pengangkutan Jalan 1987

a) Seksyen 10
b) Seksyen 12
c) Seksyen 66 (1) (*pp*)

(ii) Kaedah-kaedah Kenderaan Motor (Pembinaan Dan Penggunaan) 1959
a) Kaedah 9A , 9B

(iii) Kaedah-Kaedah Kenderaan Motor (Pembinaan Dan Penggunaan) (Kenderaan Yang Membawa Hasil Petroleum) 1965

(iv) Kaedah-Kaedah Kenderaan Motor (Tali Pinggang Keledar) 1978

(v) Kaedah-Kaedah Kenderaan Motor (Pembinaan, Kelengkapan Dan Penggunaan)(Penggunaan Sistem Bahan Api Gas Petroleum Cair dalam Kenderaan Motor) 1982

(vi) Kaedah-Kaedah Kenderaan Motor (Larangan Mengenai Jenis-Jenis Kaca Tentu) 1991.

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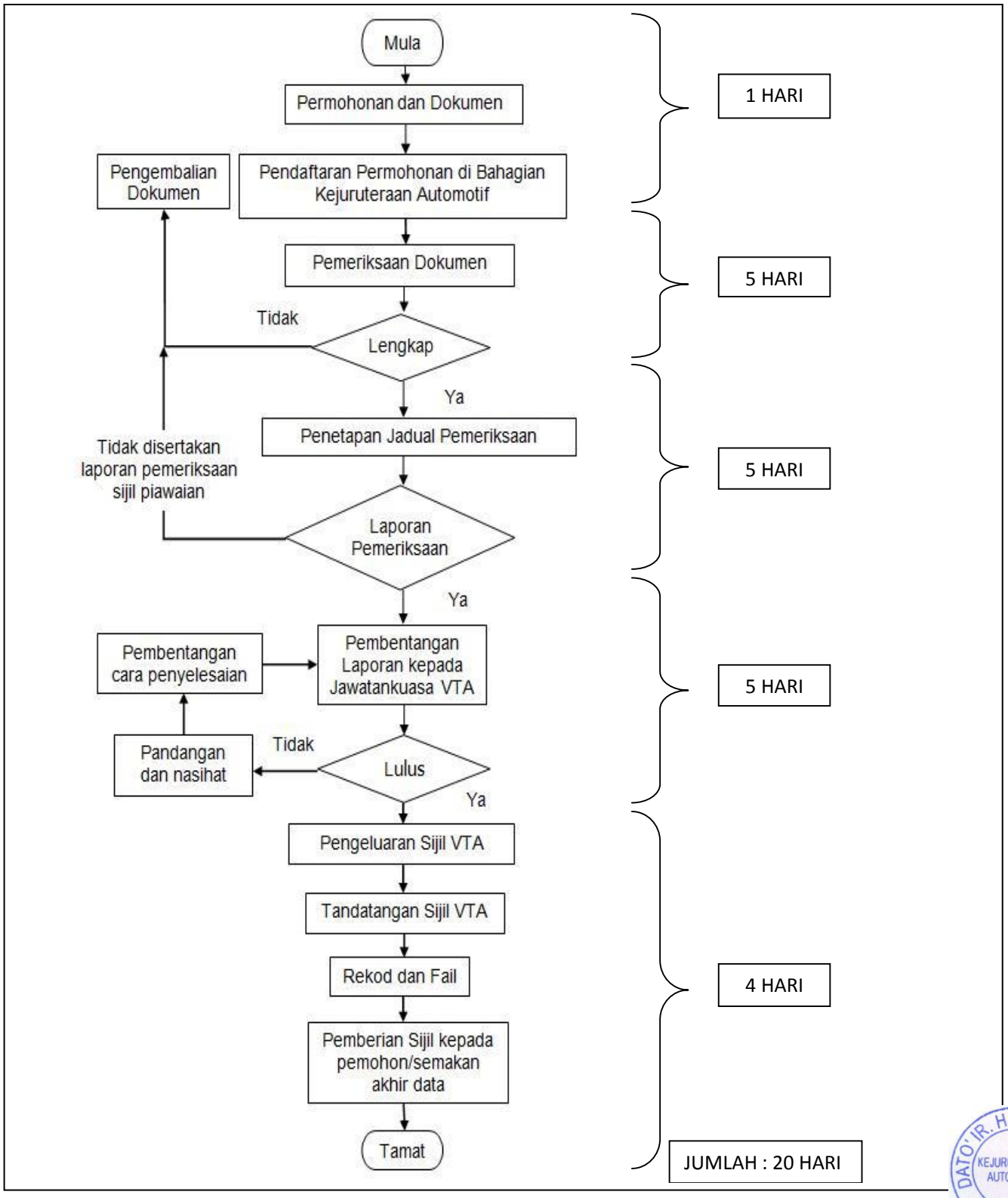
3. CARTA ALIR PERMOHONAN



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4. PANDUAN PERMOHONAN

4.1 Borang permohonan

(i) Setiap borang permohonan yang dikemukakan hendaklah mengandungi maklumat-maklumat seperti berikut :

1. Senarai semak permohonan – **LAMPIRAN 1** *(softcopy dan hardcopy)*
2. Surat rasmi permohonan Kelulusan Jenis Kenderaan daripada pemohon – **LAMPIRAN 2** (*softcopy dan hardcopy)*
3. Jadual I (*Schedule I)* – **LAMPIRAN 3 -7** seperti di para (ii) *(softcopy dan hardcopy)*
4. Jadual II (*Schedule II)* – **LAMPIRAN 8** (*softcopy dan hardcopy)*
   Gambar kenderaan (pandangan hadapan, sisi dan belakang kenderaan) – **LAMPIRAN 9** (*softcopy dan hardcopy)*
5. Penjelasan mengenai nombor casis (*Vehicle Identification Number*) dan nombor enjin (gambar terperinci dan lokasi nombor casis dan enjin kenderaan) - **LAMPIRAN 10 (a) dan LAMPIRAN 10 (b)** (*softcopy dan hardcopy)*
6. Sijil-sijil pematuhan dan laporan ujian (*test report*) bagi setiap perkara dalam Jadual I *(Schedule I)* – **LAMPIRAN 11** *(softcopy)*
7. Katalog / *Brochure* / Spesifikasi Teknikal *(Slide Presentation)* – **LAMPIRAN 12** *(hardcopy)*
8. Surat Deklarasi Pemohon – **LAMPIRAN 13** *(hardcopy)*
9. Borang Maklumat Sijil VTA – **LAMPIRAN 14** *(hardcopy)*
10. Lukisan kejuruteraan yang menunjukkan dimensi keseluruhan kenderaan – **LAMPIRAN 15** *(hardcopy)*
11. Salinan AP atau Laporan Kastam bagi kenderaan CBU – **LAMPIRAN 16** *(hardcopy)*
12. Dokumen berkaitan panduan membaiki dan penukaran 9 komponen terkawal – **LAMPIRAN 17** *(softcopy)*

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(ii) Jadual I (*Schedule I*) yang perlu disertakan dalam dokumen permohonan adalah berbeza bergantung kepada jenis kenderaan seperti berikut :

1. Jadual I (*Schedule I*) bagi kategori L (Motosikal) – **LAMPIRAN 3**
2. Jadual I (*Schedule I*) bagi kategori M (Kenderaan Penumpang) – **LAMPIRAN 4**
3. Jadual I (*Schedule I*) bagi kategori G/N/NG (Offroad/Kenderaan Perdagangan) – **LAMPIRAN 5**
4. Jadual I (*Schedule I)* bagi kategori O (Treler/Semi Treler) – **LAMPIRAN 6**
5. Jadual I (*Schedule I)* bagi kategori Kenderaan *Rebuilt* – **LAMPIRAN 7**

(iii) Pemohon (syarikat) perlu mengisytihar pegawai yang layak untuk menandatangani dokumen permohonan sebagai wakil pihak syarikat seperti di **LAMPIRAN 18** ;

(iv) Semua permohonan hendaklah dihantar dalam bentuk *portfolio* sebanyak 2 salinan. Format *portfolio* ditentukan oleh Pegawai Pengangkutan Jalan (PPJ) daripada Bahagian Kejuruteraan Automotif, Jabatan Pengangkutan Jalan (JPJ) ;

(v) Pegawai Pengangkutan Jalan (PPJ) yang menerima permohonan bertanggungjawab untuk merekod dan memfailkan dokumen yang diterima serta menyerahkan kad penerimaan permohonan kepada pemohon.

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4.2 Dokumen Yang Wajib Disertakan

(i) *National Committee For Type Approval* (VTA) *And Homologation* berhak untuk menentukan senarai piawaian yang wajib dipatuhi oleh pemohon ;

(ii) Setiap Peraturan UN / MS yang diisytiharkan hendaklah disertakan bersama salinan *(softcopy)* sijil pematuhan daripada *Approval Authority* (AA) dan laporan ujian (*test report*) daripada *Technical Service* (TS) yang diiktiraf oleh WP29 atau pihak berkompeten yang diiktiraf oleh JPJ untuk model baru sahaja. Manakala model sedia ada *(existing model),* memadai dengan laporan ujian (*test report*) sahaja daripada *Technical Service* (TS) yang diiktiraf oleh WP29 atau pihak berkompeten yang diiktiraf oleh JPJ. Walau bagaimanapun, Setiausaha *National Committee For Type Approval* (VTA) *And Homologation* berhak menentukan dokumen pematuhan yang diperlukan bagi kesesuaian keadaan di Malaysia;

(iii) Piawaian dan peraturan yang diterimapakai ialah yang dinyatakan dalam Jadual I *(Schedule I)* sahaja ;

(iv) Setiausaha *National Committee For Type Approval* (VTA) *And Homologation* berhak mengarahkan pemohon mengemukakan sebarang dokumen tambahan bagi tujuan kelulusan ;

(v) Setiausaha *National Committee For Type Approval* (VTA) *And Homologation* berhak mengarahkan pemohon untuk mendapatkan sebarang laporan pemeriksaan dan/atau sijil pematuhan piawaian tambahan daripada badan-badan kompeten seperti SIRIM dan PUSPAKOM ;

(vi) Maklumat yang terdapat di dalam dokumen yang dikemukakan hendaklah benar dan tidak bercanggah dengan fizikal kenderaan yang dipohon untuk menjalani proses Kelulusan Jenis Kenderaan (VTA). Sekiranya didapati

palsu / bercanggah dengan fizikal kenderaan, pihak Jabatan Pengangkutan Jalan (JPJ) berhak untuk membatalkan permohonan dan mengenakan tindakan kepada pemohon berdasarkan Akta Pengangkutan Jalan (APJ) 1987.

4.3 Verifikasi Dokumen

(i) Dokumen yang dihantar oleh pemohon hendaklah disemak oleh Pegawai Pengangkutan Jalan (PPJ) Bahagian Kejuruteraan Automotif yang bertanggungjawab.

(ii) Pengesahan dokumen hendaklah dilakukan oleh Jurutera / Timbalan Pengarah / Pengarah Bahagian Kejuruteraan Automotif.

(iii) Dokumen adalah tidak sah sekiranya pengesahan tidak dilakukan.

4.4 Laporan Pemeriksaan Kenderaan / Sijil Pematuhan Piawaian

(i) Pegawai Pengangkutan Jalan (PPJ) yang bertanggungjawab berhak menentukan tempat, tarikh dan masa pemeriksaan bagi kenderaan yang menjalani proses Kelulusan Jenis Kenderaan (VTA) ;

(ii) Pemeriksaan kenderaan hendaklah dilaksanakan oleh sekurang-kurangnya **DUA** orang Pegawai Pengangkutan Jalan (PPJ) daripada Bahagian Kejuruteraan Automotif (KA) JPJ ;

(iii) Bagi tujuan pemeriksaan, maklumat spesifikasi am kenderaan hendaklah di paparkan di cermin hadapan kenderaan dengan menggunakan kertas A4 seperti di **LAMPIRAN 19** ;

(iv) Pemohon perlu memastikan **tangki bahan api diisi penuh** bagi kenderaan yang akan diperiksa bagi tujuan penilaian uji pandu oleh

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Pegawai Pengangkutan Jalan (PPJ) daripada Bahagian KA JPJ. Kenderaan tidak akan diterima sekiranya tangki bahan api tidak diisi penuh ;

(v) Semua pemeriksaan VTA pada dasarnya hanya dilaksanakan di kawasan ibu pejabat JPJ Putrajaya. Walaubagaimanapun, jika pemohon tidak dapat menghantar kenderaan atas kekangan tertentu dan memerlukan pegawai JPJ ke tempat yang ditentukan pemohon samada di dalam atau luar negara, semua perbelanjaaan (kos makan minum, pengangkutan, penginapan) hendaklah ditanggung oleh pemohon dengan kadar yang setara dengan kelayakan pegawai mengikut Pekeliling kerajaan ;

(vi) Pemohon wajib memastikan keadaan kenderaan adalah lengkap dan sempurna sebelum pemeriksaan dijalankan ;

(vii) Pegawai Pengangkutan Jalan (PPJ) daripada Bahagian KA JPJ yang terbabit bertanggungjawab untuk menyediakan laporan pemeriksaan mengikut format seperti yang telah ditetapkan oleh Setiausaha *National Committee For Type Approval* (VTA) *And Homologation.*

4.5 Penerangan Spesifikasi Teknikal Kenderaan

(i) Pihak syarikat bertanggungjawab untuk menjalankan pembentangan atau sesi penerangan kepada pegawai yang terlibat dalam pemeriksaan VTA berkaitan spesifikasi teknikal kenderaan sebelum pemeriksaan fizikal dijalankan.

(ii) Antara intipati yang harus dititikberatkan di dalam pembentangan ini adalah termasuk spesifikasi enjin kenderaan, ciri-ciri keselamatan istimewa kenderaan dan langkah-langkah keselamatan bagi tujuan pemeriksaan kenderaan.

4.6 Pemeriksaan Kenderaan

(i) Pemeriksaan kenderaan yang dijalankan terbahagi kepada dua bahagian iaitu pemeriksaan fizikal dan uji pandu kenderaan ;

(ii) Pemohon hendaklah memberikan kerjasama sepenuhnya sepanjang proses pemeriksaan dan tidak berhak untuk menghalang sebarang jenis pemeriksaan kenderaan yang akan dilakukan ;

(iii) Permohonan Kelulusan Jenis Kenderaan (VTA) akan digagalkan sekiranya Pegawai tidak dapat menjalankan mana-mana pemeriksaan kenderaan yang dianggap perlu bagi proses pembentangan laporan permohonan tersebut ;

(iv) Pegawai bertanggungjawab merekodkan pemeriksaan fizikal yang dijalankan ke atas kenderaan tersebut ke dalam senarai semak yang telah disediakan ;

(v) Semua sistem dan komponen kenderaan akan dinilai dari segi fungsi dan prestasi semasa sesi uji pandu kenderaan dijalankan oleh Pegawai terbabit ;

(vi) Pegawai bertanggungjawab memaklumkan hasil pemeriksaan kenderaan kepada pemohon selepas selesai sesi pemeriksaan dijalankan ;

(vii) Pemohon perlu segera memperbaiki kelemahan yang terdapat pada kenderaan jika ada maklumbalas berkaitan daripada Pegawai yang melakukan pemeriksaan tersebut dan menghantar kenderaan yang telah diperbaiki untuk dinilai semula;

(viii) Setiap permohonan pemeriksaan kenderaan, perlu disertakan plat perdagangan (*trade plate)* bagi semua jenis kenderaan tidak terkecuali kenderaan Kategori L.

4.7 Pembentangan Laporan Permohonan Kelulusan Jenis Kenderaan (VTA)

(i) PPJ wajib mengemukakan semua laporan pemeriksaan kepada Setiausaha *National Committee For Type Approval* (VTA) *And Homologation* selewat-lewatnya **3 hari** masa bekerja sebelum mesyuarat jawatankuasa akan diadakan ;

(ii) PPJ bertanggungjawab memaklumkan alasan kegagalan untuk mengemukakan laporan pemeriksaan kepada pemohon dan setiausaha (sekiranya berkaitan) ;

(iii) Setiausaha *National Committee For Type Approval* (VTA) *And Homologation* berhak menangguhkan permohonan sekiranya laporan pemeriksaan tidak diterima dalam masa yang telah ditetapkan ;

(iv) Setiausaha *National Committee For Type Approval* (VTA) *And Homologation* berhak menentukan sebarang format bagi tujuan pembentangan laporan pemeriksaan kenderaan dan rumusan permohonan Kelulusan Jenis Kenderaan (VTA).

4.8 Mesyuarat *National Committee For Type Approval* (VTA) *And Homologation*

(i) Bagi tujuan mesyuarat, kehadiran 2/3 daripada jumlah ahli adalah diwajibkan. Kehadiran Setiausaha adalah diwajibkan bagi setiap mesyuarat ;

(ii) Bagi tujuan kelulusan sesuatu permohonan, sokongan 2/3 daripada jumlah ahli tetap adalah diwajibkan ;

(iii) Jawatankuasa berhak untuk mengubah, memperbaharui atau memperkenalkan sebarang keperluan bagi tujuan kelulusan permohonan.

4.9 Sijil Kelulusan Jenis Kenderaan (VTA)

(i) Format sijil Kelulusan Jenis Kenderaan (VTA) akan ditentukan oleh *National Committee For Type Approval* (VTA) *And Homologation ;*

(ii) Setiap pendaftaran baru model kenderaan hendaklah mengemukakan satu salinan sijil VTA bersama-sama surat kebenaran penggunaan sijil VTA daripada pemohon asal ;

(iii) Sijil VTA akan dikeluarkan dalam tempoh 20 hari dari tarikh penyerahan dokumen permohonan, sekiranya ada kelewatan, Setiausaha *National Committee For Type Approval* (VTA) *and Homologation* akan memaklumkan kepada pemohon secara bertulis atau secara email.

4.10 Jangkamasa Permohonan

(i) Setiap permohonan hendaklah dikemukakan kepada Jabatan Pengangkutan Jalan (JPJ) dalam tempoh sekurang-kurangnya 20 hari masa bekerja sebelum Mesyuarat *National Committee For Type Approval* (VTA) *And Homologation* diadakan ;

(ii) Setiausaha *National Committee For Type Approval* (VTA) *And Homologation* berhak menangguhkan permohonan kepada mesyuarat seterusnya sekiranya syarat ini tidak dipatuhi.

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4.11 Keaslian Maklumat Dan Dokumen-dokumen Yang Disertakan

(i) Pemohon wajib memastikan semua dokumen yang dikemukakan adalah benar dan sanggup untuk menerima sebarang tindakan daripada pihak Jabatan Pengangkutan Jalan (JPJ) sekiranya didapati palsu ;

(ii) Pemohon wajib memastikan semua maklumat yang dikemukakan ketika permohonan adalah sama / tidak bercanggah dengan maklumat pada fizikal kenderaan.

4.12 Kerosakan Terhadap Kenderaan Ketika Pemeriksaan

(i) Sekiranya kerosakan terhadap kenderaan berlaku ketika pemeriksaan kenderaan dijalankan atas alasan-alasan ketidaksempurnaan kenderaan atau kerosakan teknikal kenderaan, kos pembaikan adalah menjadi tanggungjawab pemohon sepenuhnya.

4.13 Pemberitahuan Perubahan Maklumat

(i) Pemohon bertanggungjawab untuk mengemukakan sebarang perubahan atau pengubahsuaian terhadap fizikal kenderaan berbanding dokumen yang dikemukakan dalam tempoh selewat-lewatnya **14 hari** selepas pengubahsuaian dilakukan secara bertulis (sekiranya berkaitan).

(ii) Permohonan akan dikategorikan sebagai permohonan semula VTA dan kelulusan hanya akan diberikan selepas mesyuarat VTA pada bulan yang berikutnya bersidang bagi kes-kes berikut :

(a) sebarang pindaan maklumat selepas tempoh 14 hari ;

(b) terdapat perubahan pada **Lampiran 11** setelah dokumen ditandatangani.

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4.14 Pemanggilan Semula (*Recall)*

(i) Pihak Jabatan Pengangkutan Jalan (JPJ) dengan kelulusan Jawatankuasa *National Committee For Type Approval* (VTA) *and Homologation* berhak untuk memanggil semula kenderaan yang didapati menghadapi masalah teknikal dan ini adalah termasuk kenderaan yang telah melalui proses Kelulusan Jenis Kenderaan (VTA) dan telah didaftarkan ;

(ii) Semua kos Pemanggilan Semula *(Recall)* adalah ditanggung oleh pihak syarikat ;

(iii) Prosedur Pemanggilan Semula *(Recall)* adalah seperti di **LAMPIRAN 20.**

4.15 *Conformity of Production* (*COP*)

(i) *Conformity of Production* (COP) bagi VTA bertujuan untuk memastikan spesifikasi kenderaan yang dikeluarkan dari kilang adalah sama dengan spesifikasi model kenderaan yang telah lulus VTA. Pemeriksaan semula kenderaan akan dilakukan secara rawak atau berkala sama ada di kilang atau di mana-mana pengedar yang sah yang dilantik oleh pemohon.

(ii) Jika terdapat sebarang perubahan termasuk pemasangan aksesori bagi spesifikasi model kenderaan yang telah lulus VTA, pemohon hendaklah memaklumkan kepada Jabatan Pengangkutan Jalan (JPJ). Kegagalan pemohon berbuat demikian boleh menyebabkan COP gagal dan tindakan boleh diambil. Antara tindakan yang boleh dikenakan adalah:

(a) Kelulusan VTA ditarik balik
(b) Larangan Pendaftaran Kenderaan
(c) Penalti di bawah Seksyen 12 dan Seksyen 117 APJ 1987

(iii) Kekerapan pelaksanaan COP adalah seperti jadual di bawah:

Jumlah pengeluaran kenderaan / tahun (CKD + SKD + CBU)	**Pelaksanaan *Conformity Of Production* (COP)**
1000 unit dan ke bawah	2 tahun sekali
Melebihi 1000 unit	1 tahun sekali

(iv) Pelaksanaan COP akan berkuatkuasa ke atas setiap model baru atau model sedia ada (CKD + SKD + CBU) kenderaan yang memperolehi Sijil Kelulusan Jenis Kenderaan (VTA) bermula 01 Januari 2015 ;

(v) Setiap pengeluar perlu mengisytihar jumlah pengeluaran kenderaan / tahun bagi setiap model yang telah mendapat Kelulusan Jenis Kenderaan (VTA) bermula 1 Januari 2015 bagi memudahkan Jabatan ini menjalankan proses COP.

(vi) Carta alir proses COP adalah seperti di **LAMPIRAN 21**.

4.16 *Product Labelling*

(i) *Product Labelling* bertujuan untuk pengenalan identiti model dan memudahkan proses penguatkuasaan. Setiap model kenderaan yang telah memperolehi Sijil Kelulusan Jenis Kenderaan (VTA) mempunyai nombor siri sijil VTA. Nombor siri sijil VTA tersebut wajib dipaparkan pada setiap kenderaan yang dikeluarkan bermula 01 Januari 2014 ;

(ii) Plat atau pelekat *(sticker)* hendaklah digunakan bagi tujuan paparan nombor siri sijil VTA tersebut di mana-mana bahagian kenderaan yang dirasakan sesuai dan mudah untuk dilihat. Jika pelekat *(sticker)* digunakan, pelekat *(sticker)* tersebut hendaklah dari jenis *tampered proof* ;

(iii) Contoh *Product Labelling* bagi kenderaan kategori M, N dan O adalah seperti di **LAMPIRAN 22** dan bagi kenderaan kategori L (Motosikal) seperti di **LAMPIRAN 23** ;

(iv) *Product Labelling* telah menjadi item mandatori dalam pemeriksaan PUSPAKOM bermula 01 Julai 2014 (Pemeriksaan Awalan dan Pemeriksaan Khas bagi Kenderaan CBU) ;

(v) Mulai **01 Januari 2017**, pelaksanaan format *Product Labelling* akan mengandungi maklumat-maklumat berikut :

(a) Name of the Manufacturer ;

(b) Vehicle Type Approval (VTA) Number ;

(c) *Vehicle Identification Number* (VIN) / *Chassis Number ;*

(d) Gross Vehicle Weight (GVW) of the vehicle[1] ;*

(e) Gross Combination Weight (GCW), where the vehicle is used for towing[2] ; and*

(f) Axle load rating for each axle, listed in order from front to rear.

[1] *GVW in this case* = Berat Dengan Muatan (BDM)
[2] *GCW in this case* = Berat Gabungan Kasar (BGK)

4.17 VTA Kenderaan *Rebuild*

(i) Senarai piawaian yang wajib dipatuhi oleh pemohon seperti di Schedule I bagi kategori *Rebuild* ;

(ii) Setiap piawaian yang diisytiharkan hendaklah disertakan bersama gambar penandaan pematuhan (E-*marking* / *MS Marking*) ;

(iii) Setiausaha *National Committee For Type Approval* (VTA) *And Homologation* berhak mengarahkan pemohon mengemukakan sebarang dokumen tambahan bagi tujuan kelulusan ;

(iv) Maklumat yang terdapat di dalam dokumen yang dikemukakan hendaklah benar dan tidak bercanggah dengan fizikal kenderaan yang dipohon untuk menjalani proses Kelulusan Jenis Kenderaan (VTA). Sekiranya didapati palsu / bercanggah dengan fizikal kenderaan, pihak Jabatan Pengangkutan Jalan (JPJ) berhak untuk membatalkan permohonan dan mengenakan tindakan kepada pemohon berdasarkan Akta Pengangkutan Jalan (APJ) 1987.

(v) Dokumen-dokumen lain yang perlu dikemukakan ialah :-

(a) Senarai semak permohonan
(b) Surat Rasmi permohonan
(c) Jadual I (Schedule I)
(d) Jadual II (Schedule II)
(e) Salinan AP dari MITI
(f) Borang Kastam *yang terlibat (jika ada)*
(g) Gambar kenderaan (pandangan hadapan, sisi dan belakang)
(h) Gambar E-*marking* komponen terlibat
(i) Lukisan kejuruteraan yang menunjukkan dimensi kenderaan

5. PELAKSANAAN UN DAN KESANNYA KEPADA PERMOHONAN KELULUSAN JENIS KENDERAAN

Sebagai salah sebuah negara anggota *World Forum for Harmonization of Vehicle Regulations* (WP29) yang telah menandatangani Perjanjian 1958 dan Perjanjian 1998, Malaysia telah memberi komitmen untuk mengadaptasi peraturan UN ke dalam peraturan sedia ada iaitu Kaedah-Kaedah Pengangkutan Jalan.

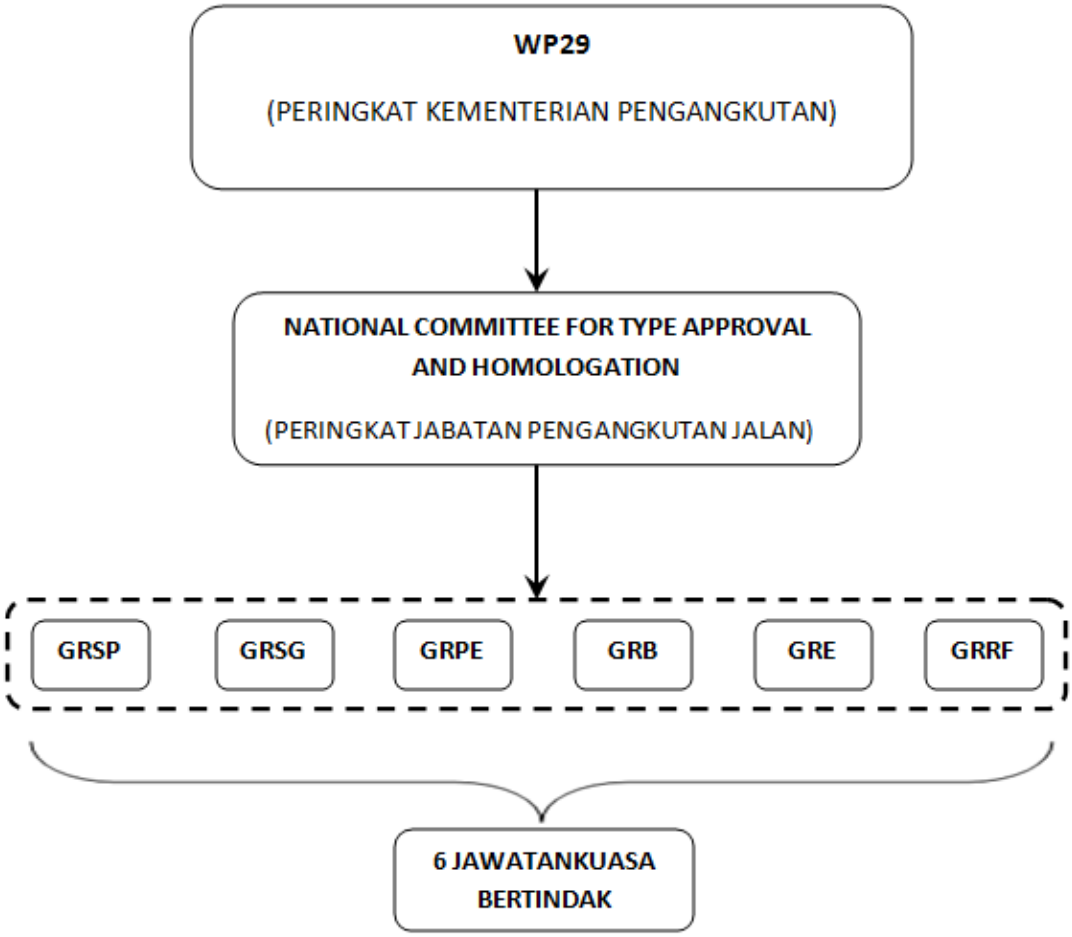
Perjanjian 1958 merupakan salah satu perjanjian di bawah WP29 yang mewajibkan proses pensijilan bagi setiap ujian yang dijalankan berdasarkan peraturan UN manakala Perjanjian 1998 pula merupakan salah satu perjanjian di bawah WP29

yang bersifat ‘self-declaration’ bagi setiap pematuhan piawaian *Global Technical Regulation* (GTR).

Di bawah Perjanjian 1958, terdapat 133 peraturan UN yang merangkumi aspek teknikal dan keselamatan kenderaan serta aspek pengawalan pelepasan asap dan bunyi dari kenderaan. Jumlah peraturan ini akan bertambah dari semasa ke semasa bergantung kepada keputusan WP29.

Bagi memudahkan pelaksanaan peraturan ini, Perjanjian 1958 telah dipilih di mana pemohon yang memohon Kelulusan Jenis Kenderaan (VTA) perlu mengemukakan sijil pematuhan peraturan UN dan laporan ujian bagi model kenderaan yang dipohon.

Bagi memastikan proses pelaksanaan peraturan UN dijalankan dengan efisien di Malaysia, beberapa jawatankuasa telah ditubuhkan iaitu Jawatankuasa WP29 (Peringkat Kementerian Pengangkutan), *National Committee for Type Approval* (VTA) *& Homologation* (Peringkat Jabatan Pengangkutan Jalan) dan 6 Jawatankuasa Bertindak (Peringkat Ahli-Ahli Jawatankuasa VTA).



Sehingga kini, Jabatan Pengangkutan Jalan (JPJ) di bawah Kementerian Pengangkutan (MOT) telah mewartakan 100 peraturan UN dan sebahagian peraturan tersebut meliputi bidang kawalan pelepasan asap dan bunyi dari kenderaan.

Senarai Peraturan UN yang **telah diwartakan dan akan dikuatkuasakan (Sehingga Julai 2017)** iaitu melibatkan **100 Peraturan UN** adalah seperti berikut:

Telah diwartakan dan dikuatkuasakan bermula 01 Januari 2012

1. R3 : *Reflex Reflector*
2. R6 : *Indicator Performance*
3. R7 : *Brake Lamp Performance*
4. R13 : *Braking*
5. R13H : *Braking*
6. R14 : *Safety Belt Anchorages*
7. R15 : *Exhaust Emission (DOE)*
8. R16 : *Safety Belts*
9. R17 : *Seats*
10. R18 : *Protection Against Unauthorized Use*
11. R22 : *Protective Helmet & Visor for Motorcycle & Moped*
12. R24 : *Diesel Smoke (DOE)*
13. R25 : *Head Restraints*
14. R28 : *Audible Warning Devices*
15. R30 : *Pneumatic Tyres (Passenger Vehicle)*
16. R36 : *Construction Of Public Service Vehicles*
17. R39 : *Speedometer*
18. R40 : *Exhaust Emission (Motorcycle)*
19. R41 : *Noise Emission (Motorcycle)*
20. R43 : *Safety Glass*
21. R46 : *Rear View Mirrors*
22. R48 : *Installation Of Lights (for High Intensity Discharge (HID) only)*
23. R49 : *Diesel Emission (DOE)*
24. R50 : *Lights (Motorcycle)*
25. R51 : *Noise Emission*
26. R52 : *Construction Of Small Capacity Public Service Vehicle*
27. R53 : *Installation Of Lights (Motorcycle)*
28. R54 : *Pneumatic Tyres (Commercial Vehicles)*
29. R58 : *Rear Underrun Protection*
30. R62 : *Protection Against Unauthorized Use (Motorcycles)*

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31. R66 : *Strength Of Superstructure (Large Passenger Vehicle)*
32. R69 : *Rear Marking Plates For Slow Moving Vehicles And Their Trailers*
33. R70 : *Rear Marking Plates For Heavy And Long Vehicles*
34. R73 : *Lateral Protection (Goods Vehicle)*
35. R75 : *Pneumatic Tyres (Motorcycle)*
36. R78 : *Braking (Motorcycle)*
37. R79 : *Steering Equipment*
38. R80 : *Seat (Large Passenger Vehicle)*
39. R81 : *Rear View Mirrors (Motorcycle)*
40. R83 : *Gaseous Pollutants*
41. R90 : *Replacement Brake Lining Assemblies*
42. R93 : *Front Underrun Protection*
43. R94 : *Protection Of The Occupants in the Event of a Frontal Collision*
44. R95 : *Protection Of The Occupants in the Event of a Lateral Collision*
45. R97 : *Vehicle Alarm System*
46. R98 : *Gas Discharge Headlamps*
47. R99 : *Gas Discharge Light Sources*
48. R100 : *Battery Electric Vehicles*
49. R104 : *Retro-reflective Markings for Heavy and Long Vehicles*
50. R108 : *Retreaded Pneumatic Tyres (Motor Vehicle)*
51. R109 : *Retreaded Pneumatic Tyres (Commercial Vehicle)*
52. R112 : *Headlamps (Asymmetrical)*
53. R113 : *Headlamps (Symmetrical)*
54. R116 : *Protection Against Unauthorized Use (Technical Prescription)*

Telah diwartakan dan penguatkuasaan bermula 01 Januari 2015

1. R4 : *Rear Registration Plate Lamp*
2. R10 : *Radio Interference Suppression*
3. R11 : *Door Latches and Hinges*
4. R19 : *Front Fog Lamps*
5. R21 : *Interior Fittings*
6. R23 : *Reversing Lamps*
7. R26 : *External Projection*
8. R34 : *Prevention of Fire Risks*
9. R37 : *Filament Lamps*
10. R38 : *Rear Fog Lamps*
11. R44 : *Child Restraint*
12. R45 : *Headlamp Cleaners*
13. R48 : *Installation Of Lights (for other lamps)*
14. R55 : *Mechanical Coupling*
15. R60 : *Driver Operated Control (Motorcycle)*
16. R61 : *External Projection*
17. R64 : *Temporary Spare Tyres*
18. R77 : *Parking Lamps*
19. R89 : *Speed Limitation Device*
20. R91 : *Side-marker Lamps*
21. R101 : *Emission of Carbon Dioxide and Fuel Consumption (Passenger Car)(EEV only)*
22. R117 : *Tyres with regard to rolling sound emission*
23. R119 : *Cornering Lamps*
24. R121 : *Hand Controls, Tell-tales and indications*

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Yang akan diwartakan dan penguatkuasaan bermula 01 Julai 2017

1.	R9 :	*Noise of three-wheeled vehicles*
2.	R12 :	*Steering mechanism*
3.	R27 :	*Advance warning triangles*
4.	R47 :	*Exhaust Emission (Moped)*
5.	R56 :	*Headlamps (Moped)*
6.	R57 :	*Headlamps (Motor Cycle)*
7.	R63 :	*Noise (Moped)*
8.	R65 :	*Special warning lamps*
9.	R72 :	*Halogen Headlamps (HS1 for motorcycles)*
10.	R74 :	*Installation of Light (Moped)*
11.	R76 :	*Headlamps (Moped)*
12.	R82 :	*Halogen Headlamps (HS2 for Moped)*
13.	R85 :	*Measurement of Engine Power*
14.	R87 :	*Daytime Running Light*
15.	R105 :	*Vehicles for the carriage of dangerous goods*
16.	R107 :	*General construction of buses and coaches*
17.	R115 :	*LPG and CNG Retrofit System*
18.	R123 :	*Adaptive front-lighting systems (AFS)*
19.	R125 :	*Forward field of vision of drivers*
20.	R126 :	*Partitioning systems*
21.	R128 :	*Light Emitting Diode (LED) light sources*
22.	R129 :	*Enhanced Child Restraint Systems (ECRS)*

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P(KA)

Yang akan diwartakan dan penguatkuasaan bermula 01 Januari 2020

1. R29 : *Cabs of commercial vehicles*
2. R31 : *Halogen Sealed Beam Headlamps*
3. R32 : *Rear-end collision*
4. R35 : *Arrangement of Foot controls*
5. R59 : *Replacement silencing systems*
6. R67 : *LPG vehicles*
7. R68 : *Measurement of the maximum speed*
8. R88 : *Retro reflective Tyres (Motor Cycles)*
9. R92 : *Replacement Silencing systems (Motor Cycles)*
10. R102 : *Close Coupling Device (CCD)*
11. R103 : *Replacement pollution control devices*
12. R110 : *CNG and LNG vehicles*
13. R111 : *Rollover Stability (N and O vehicles category)*
14. R114 : *Airbag Module for Replacement*
15. R118 : *Fire resistance of interior materials*
16. R124 : *Replacement wheels for passenger cars*
17. R127 : *Pedestrian Safety*
18. R130 : *Lane Departure Warning System (LDWS)*
19. R131 : *Advanced Emergency Braking Systems (AEBS)*
20. R140 : *ESC Systems*

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Setiap permohonan Kelulusan Jenis Kenderaan (VTA) perlu menyertakan salinan sijil pematuhan peraturan UN dan laporan ujian bagi komponen dan sistem yang berkaitan. Permohonan akan dikategorikan sebagai **GAGAL** sekiranya pemohon tidak dapat menyertakan salinan sijil pematuhan dan laporan pengujian tersebut.

6. PELAKSANAAN PENGKOMPUTERAN SEMULA *(REVAMP)* DAN KESANNYA KEPADA PERMOHONAN KELULUSAN JENIS KENDERAAN

Seiring dengan perkembangan semasa Teknologi Maklumat (IT), Jabatan Pengangkutan Jalan (JPJ) melalui Program Transformasi Kerajaan (GTP) telah beriltizam untuk memberi wajah baru kepada proses kerja Jabatan di mana semua urusan permohonan yang melibatkan Jabatan ini dengan orang awam akan dilakukan secara atas talian (*online*).

Sehubungan itu, proses permohonan Kelulusan Jenis Kenderaan (VTA) juga akan dilakukan oleh pemohon secara atas talian (*online*) dengan semua borang permohonan berkaitan telah disediakan. Pemohon perlu mengisi borang tersebut dan melampirkan (*upload)* salinan dokumen seperti salinan sijil pematuhan peraturan UN, laporan ujian dan dokumen lain yang berkaitan.

Kemudahan ini bakal menjimatkan penggunaan kertas di mana sebelum ini permohonan perlu dihantar ke kaunter Bahagian Kejuruteraan Automotif Ibu pejabat dalam dua salinan. Selain itu, ini juga akan menjimatkan masa pemohon yang tidak perlu lagi menghantar dokumen permohonan ke kaunter.

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P(KA)

7. CONTOH SIJIL KELULUSAN JENIS KENDERAAN

7.1 Sijil Kelulusan Jenis Kenderaan (≤ 2014)

No. Siri: XXX/0001/14

JABATAN PENGANGKUTAN JALAN MALAYSIA

SIJIL KELULUSAN JENIS KENDERAAN
(VEHICLE TYPE APPROVAL)

National Committee For Vehicle Type Approval (VTA) And Homologation Bil. 12/2014 bertarikh 23 Disember 2014 meluluskan dan mengesahkan bahawa kenderaan berikut layak didaftarkan mengikut Seksyen 10 Akta Pengangkutan Jalan 1987.

Buatan	:	
Model	:	
Kod Model	:	
Model Tahun	:	2014
Jenis/Prefix Enjin	:	
		8 Cylinder, 4 stroke
Kuasa Enjin	:	3799 cc/ 478 kW
Bahanapi	:	Unleaded Petrol (RON 98)
Tempat Duduk	:	2
Transmisi	:	Automatik, 7 Speed
Jenis Badan	:	Motokar (MKR)
Kategori	:	M_1
Kegunaan	:	Persendirian
Kod Buatan	:	
Negara Pembuat	:	United Kingdom (CBU)
Pemohon	:	

DATO' IR.HJ.MOHAMAD BIN DALIB
Setiausaha *National Committee For Type Approval (VTA) And Homologation*

DATO' SRI ISMAIL BIN AHMAD
Pengerusi *National Committee For Type Approval (VTA) And Homologation*

Tarikh : 23 Disember 2014

No. Siri : XXX/0001/14

- 0 = Bagi Kenderaan yang mematuhi peraturan UN yang telah dikuatkuasakan pada 2012
- Jika Model kenderaan masih lagi dikeluarkan atau dijual dan tahun dibuat/Pengeluran adalah 2017 - Perlu Mengemukakan permohonan VTA semula bagi pematuhan peraturan yang telah dikuatkuasakan pada tahun 2015 atau 2017

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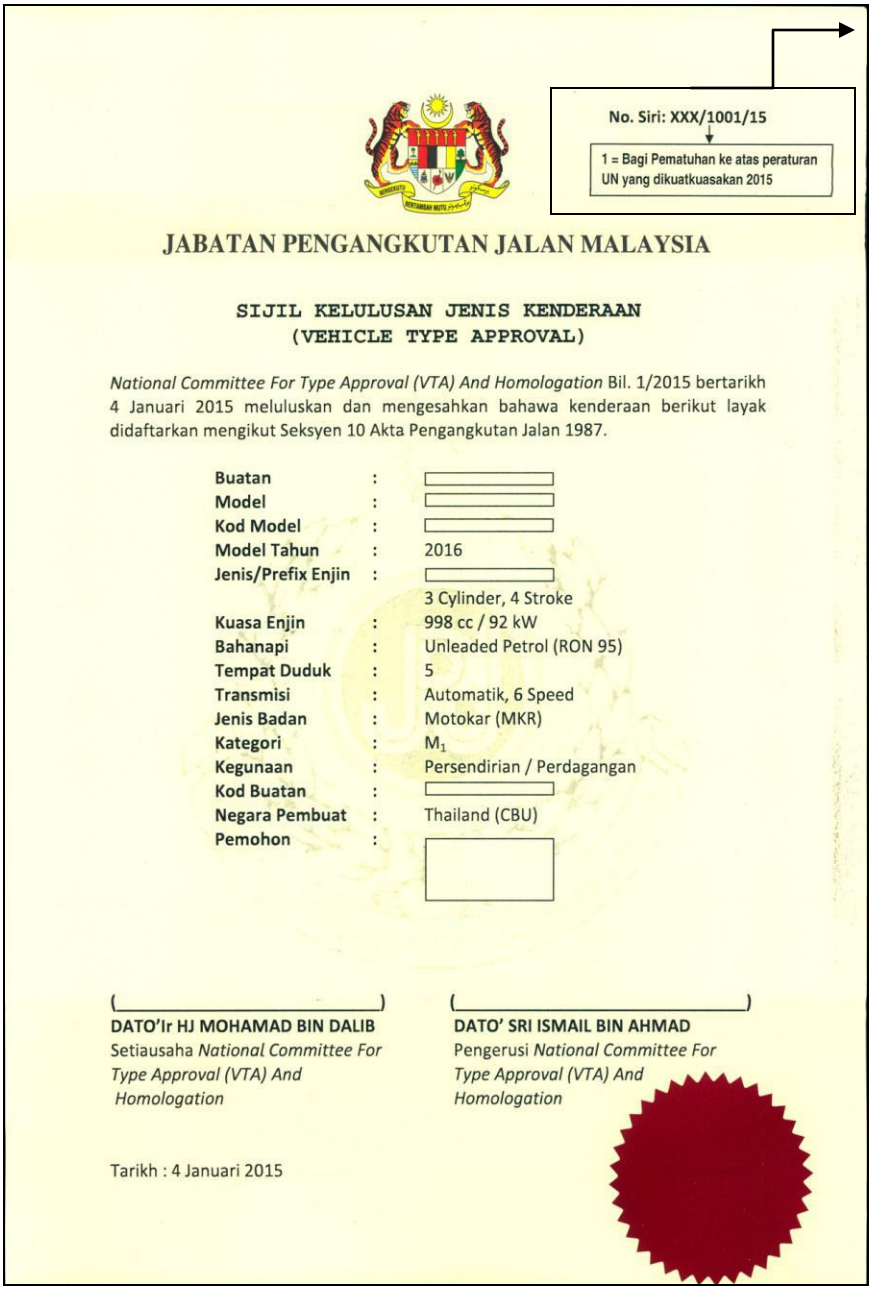
7.2 Sijil Kelulusan Jenis Kenderaan (≥ 2015)



No. Siri: XXX/1001/15

1 = Bagi Pematuhan ke atas peraturan UN yang dikuatkuasakan 2015

JABATAN PENGANGKUTAN JALAN MALAYSIA

SIJIL KELULUSAN JENIS KENDERAAN
(VEHICLE TYPE APPROVAL)

National Committee For Type Approval (VTA) And Homologation Bil. 1/2015 bertarikh 4 Januari 2015 meluluskan dan mengesahkan bahawa kenderaan berikut layak didaftarkan mengikut Seksyen 10 Akta Pengangkutan Jalan 1987.

Buatan	:	
Model	:	
Kod Model	:	
Model Tahun	:	2016
Jenis/Prefix Enjin	:	
		3 Cylinder, 4 Stroke
Kuasa Enjin	:	998 cc / 92 kW
Bahanapi	:	Unleaded Petrol (RON 95)
Tempat Duduk	:	5
Transmisi	:	Automatik, 6 Speed
Jenis Badan	:	Motokar (MKR)
Kategori	:	M_1
Kegunaan	:	Persendirian / Perdagangan
Kod Buatan	:	
Negara Pembuat	:	Thailand (CBU)
Pemohon	:	

(_____)
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Setiausaha *National Committee For Type Approval (VTA) And Homologation*

(_____)
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Pengerusi *National Committee For Type Approval (VTA) And Homologation*

Tarikh : 4 Januari 2015

No. Siri : XXX/1001/15

- 1 = Bagi Kenderaan yang mematuhi peraturan UN yang telah dikuatkuasakan pada 2015
- Jika Model kenderaan masih lagi dikeluarkan atau dijual dimana tahun dibuat/pengeluran adalah 2020 - Perlu Mengemukakan permohonan VTA semula bagi pematuhan peraturan yang telah dikuatkuasakan pada tahun 2017 atau 2020

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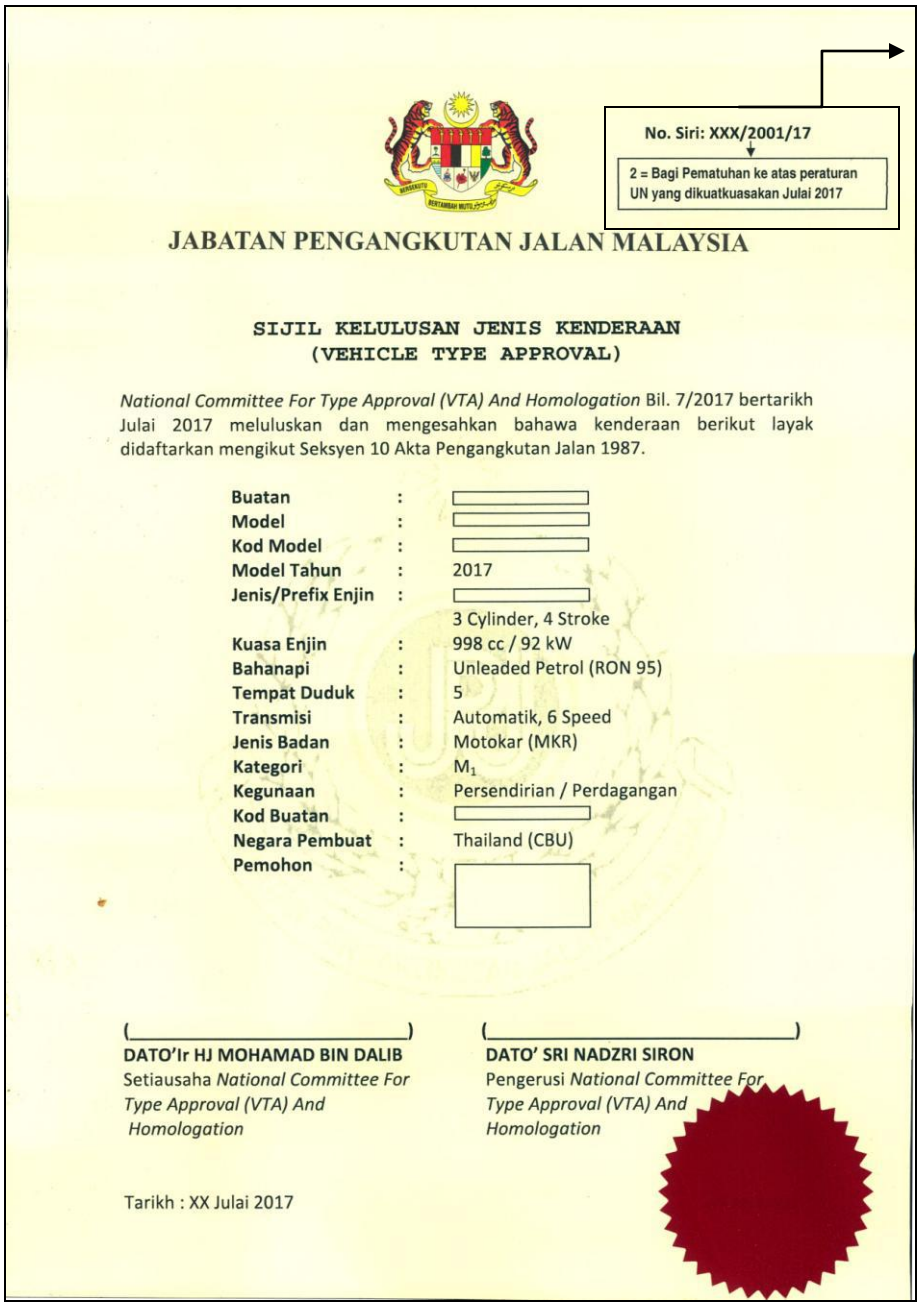
7.3 Sijil Kelulusan Jenis Kenderaan (≥ Julai 2017)



No. Siri: XXX/2001/17

2 = Bagi Pematuhan ke atas peraturan UN yang dikuatkuasakan Julai 2017

JABATAN PENGANGKUTAN JALAN MALAYSIA

SIJIL KELULUSAN JENIS KENDERAAN
(VEHICLE TYPE APPROVAL)

National Committee For Type Approval (VTA) And Homologation Bil. 7/2017 bertarikh Julai 2017 meluluskan dan mengesahkan bahawa kenderaan berikut layak didaftarkan mengikut Seksyen 10 Akta Pengangkutan Jalan 1987.

Buatan	:	
Model	:	
Kod Model	:	
Model Tahun	:	2017
Jenis/Prefix Enjin	:	
		3 Cylinder, 4 Stroke
Kuasa Enjin	:	998 cc / 92 kW
Bahanapi	:	Unleaded Petrol (RON 95)
Tempat Duduk	:	5
Transmisi	:	Automatik, 6 Speed
Jenis Badan	:	Motokar (MKR)
Kategori	:	M_1
Kegunaan	:	Persendirian / Perdagangan
Kod Buatan	:	
Negara Pembuat	:	Thailand (CBU)
Pemohon	:	

(_____)
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Setiausaha *National Committee For Type Approval (VTA) And Homologation*

(_____)
DATO' SRI NADZRI SIRON
Pengerusi *National Committee For Type Approval (VTA) And Homologation*

Tarikh : XX Julai 2017

No. Siri : XXX/2001/17

- 2 = Bagi Kenderaan yang mematuhi peraturan UN yang telah dikuatkuasakan pada Julai 2017

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8 Pengelasan Model Baru Kenderaan

Terdapat beberapa perkara yang membezakan diantara kenderaan-kenderaan model baru dan juga model yang telah melalui penambahbaikan (*facelift).* Definisi ini terbahagi kepada 3 komponen iaitu:

i) *Type*
ii) *Variant*
iii) *Version*

8.1 Definisi Model Baru Bagi Kategori L (Motosikal)

Definisi model baru terbahagi kepada tiga (3) komponen iaitu:

8.1.1 'Type' bermaksud sama ada kenderaan atau satu kumpulan kenderaan (*variants*) yang mana:

(i) *Belong to a single category* (two wheel L3, three wheel (tri-cycle) L5 etc.) ;

(ii) *Are constructed by the same manufacturer ;*

(iii) *Have the same chassis, frame, sub-frame, floor pan or structure to which major components are attached ;*

(iv) *Have a power unit with the same principle of operation (internal combustion, electric, hybrid, etc. ; and*

(v) *Have the same type designation given by the manufacturer.*

A type of vehicle may include variants and versions.

8.1.2 *'Variant'* bermaksud sama ada kenderaan atau satu kumpulan kenderaan (*versions*) dari *'type'* yang sama di mana:

(i) They have the same shape of the bodywork (basic characteristics) ;

(ii) Within the group of vehicles (versions) the difference in mass in running order between the lowest value and the highest value does not exceed 20% of the lowest value ;

(iii) Within the group of vehicles (versions) the difference in the maximum permissible mass between the lowest value and the highest value does not exceed 20% of the lowest value ;

(iv) They have the same operating cycle (two or four stroke, spark ignition or compression ignition) ;

(v) Within the group of vehicles (versions) the difference in the cylinder capacity of the power unit (in the case of an internal combustion unit) between the lowest value and the highest value does not exceed 30% of the lowest value ;

(vi) Have the same number and arrangement of cylinders ;

(vii) Within the group of vehicles (versions) the difference in the power output of the power unit between the lowest value and the highest value does not exceed 30% of the lowest value ;

(viii) Have the same operating mode (of electric motors) ; and

(ix) Have the same type of gearbox (manual, automatic, etc.).

8.1.3 'Version' bermaksud kenderaan dari *'type'* dan *'variant'* yang sama tetapi yang mungkin akan menggabungkan mana-mana peralatan, komponen atau sistem dengan syarat bahawa hanya terdapat:

(a) *One value quoted for:*

(i) The mass in running order ;
(ii) The maximum permissible mass ;
(iii) The power output of the power unit ; and
(iv) The cylinder capacity of the power unit.

(b) *One set of test results.*

8.2 Definisi Model Baru Bagi Kategori M1, M2, M3, N1, N2 dan N3.

8.2.1 ***Category M1***

8.2.1.1 <u>*Vehicle type:*</u>

8.2.1.1.1 A *'vehicle type' shall consist of vehicles which have all of the following features in common:*

(a) *The manufacturer's company name.*

A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) *the design and assembly of the essential parts of the body structure in the case of a self-supporting body.*

The same shall apply mutatis mutandis to vehicles the bodywork of which is bolted on or welded to a separate frame;

(c) *in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.*

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8.2.1.1.2. *By way of derogation from the requirements of point, when the manufacturer uses the floor portion of the body structure as well as the essential constituent elements forming the front part of the body structure located directly in front of the windscreen bay, in the construction of different kinds of bodywork (for example a saloon and a coupe), those vehicles may be considered as belonging to the same type. Evidence thereof shall be provided by the manufacturer.*

8.2.1.1.3. *A type shall consist of at least one variant and one version.*

8.2.1.2. *Variant:*

8.2.1.2.1. *A 'variant' within a vehicle type shall group the vehicles which have all of the following construction features in common:*

(a) the number of lateral doors or the type of bodywork as defined in Section 1 of Part C when the manufacturer uses the criterion of point 1.1.2;

(b) the power plant with regard to the following construction features:

(i) the type of energy supply (internal combustion engine, electric motor or other);

(ii) the working principle (positive ignition, compression ignition or other);

(iii) the number and arrangement of cylinders in the case of internal combustion engine (L4, V6 or other);

(c) the number of axles;

(d) the number, and interconnection of powered axles;

(e) the number of steered axles;

(f) the stage of completion (e.g. complete/incomplete).

8.2.1.3. *Version:*

8.2.1.3.1. *A'version' within a variant shall group the vehicles which have all the following features in common:*

(a) the technically permissible maximum laden mass;

(b) the engine capacity in the case of internal combustion engine;

(c) the maximum engine power output or the maximum continuous rated power (electric motor);

(d) the nature of the fuel (petrol, gas oil, LPG, bi-fuel or other);

(e) the maximum number of seating positions;

(f) drive-by sound level;

(g) exhaust emission level (for example Euro 5, Euro 6 or other);

(h) combined or weighted, combined CO2 emissions;

(i) electric energy consumption (weighted, combined);

(j) combined or weighted, combined fuel consumption;

8.2.2. *Categories M 2 and M 3*

8.2.2.1. *Vehicle type:*

8.2.2.1.1. *A 'vehicle type' shall consist of vehicles which have all of the following features in common:*

(a) the manufacturer's company name. A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the category;

(c) the following aspects of construction and design:

(i) the design and construction of the essential constituent elements

(ii) the design and construction of the essential constituent elements forming the body structure in the case of a self-supporting body;

(d) the number of decks (single or double);

(e) the number of sections (rigid/articulated);

(f) the number of axles;

(g) the mode of energy supply (on-board or off-board);

(h) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

8.2.2.1.2. *A type shall consist of at least one variant and one version.*

8.2.2.2. Variant:

8.2.2.2.1. *A 'variant' within a vehicle type shall group the vehicles which have all of the following construction features in common:*

(a) the type of bodywork ;

(b) the class or combination of classes of vehicles ;

(c) the stage of completion (e.g. complete / incomplete / completed);

(d) the power plant with regard to the following construction features:

(i) the type of energy supply (internal combustion engine, electric motor or other);

(ii) the working principle (positive ignition, compression ignition or other);

(iii) the number and arrangement of cylinders in the case of internal combustion engine (L6, V8 or other).

8.2.2.3. *Version:*

8.2.2.3.1. *A 'version' within a variant shall group the vehicles which have all the following features in common:*

(a) the technically permissible maximum laden mass;

(b) the ability of the vehicle to tow a trailer or not;

(c) the engine capacity in the case of internal combustion engine;

(d) the maximum engine power output or the maximum continuous rated power (electric motor);

(e) the nature of the fuel (petrol, gas oil, LPG, bi-fuel or other);

(f) drive-by sound level;

(g) exhaust emission level (for example Euro III, Euro IV or other).

8.2. 3 Category N 1

8.2.3.1. *Vehicle type:*

8.2.3.1.1. *A 'vehicle type' shall consist of vehicles which have all of the following features in common:*

(a) the manufacturer's company name.
A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the design and assembly of the essential parts of the body structure in the case of a self-supporting body;

(c) the design and the construction of the essential constituent elements forming the chassis in the case of a non self-supporting body;

(d) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

8.2.3.1.2. *By way of derogation from the requirements of point 3.1.1(b), when the manufacturer uses the floor portion of the body structure as well the essential constituent elements forming the front part of the body structure located directly in front of the windscreen bay, in the construction of different kinds of bodywork (for example a van and a chassis-cab, different wheelbases and different roof heights), those vehicles may be considered as belonging to the same type. Evidence thereof shall be provided by the manufacturer.*

8.2.3.1.3. *A type shall consist of at least one variant and one version.*

8.2.3.2. Variant:

8.2.3.2.1. *A 'variant' within a vehicle type shall group the vehicles which have all of the following construction features in common:*

(a) the number of lateral doors or the type of bodywork ;

(b) the stage of completion (e.g. complete/incomplete/completed);

(c) the power plant with regard to the following construction features:

(i) the type of energy supply (internal combustion engine, electric motor or other);

(ii) the working principle (positive ignition, compression ignition or other);

(iii) the number and arrangement of cylinders in the case of internal combustion engine (L6, V8 or other);

(d) the number of axles;

(e) the number and interconnection of powered axles; (f) the number of steered axles.

8.2.3.3. *Version:*

8.2.3.3.1. *A 'version' within a variant shall group the vehicles which have all the following features in common:*

(a) the technically permissible maximum laden mass;

(b) the engine capacity in the case of internal combustion engine;

(c) the maximum engine power output or maximum continuous rated power (electric motor);

(d) the nature of the fuel (petrol, gas oil, LPG, bi-fuel or other);

(e) the maximum number of seating positions;

(f) drive-by sound level;

(g) exhaust emission level (for example Euro 5, Euro 6 or other);

(h) combined or weighted, combined CO 2 emissions;

(i) electric energy consumption (weighted, combined);

(j) combined or weighted, combined fuel consumption

8.2.4. *Categories N 2 and N 3*

8.2.4.1. *Vehicle type:*

8.2.4.1.1. *A 'vehicle type' shall consist of vehicles which have all of the following essential features in common:*

(a) the manufacturer's company name. A change in the legal form of ownership of the company does not require that a new approval has to be granted;

(b) the category;

(c) the design and construction of the chassis that are common to a single line of product;

(d) the number of axles;

(e) in the case of multi-stage built vehicles, the manufacturer and the type of the previous stage vehicle.

8.2.4.1.2. *A type shall consist of at least one variant and one version.*

8.2.4.2. Variant:

8.2.4.2.1. *A 'variant' within a vehicle type shall group the vehicles which have all of the following construction features in common:*

(a) the body structural concept or type of bodywork ;

(b) the stage of completion (e.g. complete/incomplete/completed);

(c) the power plant with regard to the following construction features:

(i) the type of energy supply (internal combustion engine, electric motor or other);

(ii) the working principle (positive ignition, compression ignition or other);

(iii) the number and arrangement of cylinders in the case of internal combustion engine (L6, V8 or other);

(d) the number and interconnection of powered axles;

(e) the number of steered axles.

8.2.4.3. Version:

8.2.4.3.1. *A 'version' within a variant shall group the vehicles which have all the following features in common:*

(a) the technically permissible maximum laden mass;

(b) the ability or not to tow a trailer as follows:

(i) an unbraked trailer;

(ii) a trailer with an inertia (or overrun) braking system as defined in point 2.12 of UN Regulation No 13;

(iii) a trailer with a continuous or semi-continuous braking system as defined in points 2.9 and 2.10 of UN Regulation No 13;

(iv) a trailer of category O 4 that results in a maximum mass of the combination not exceeding 44 tonnes;

(v) a trailer of category O 4 that results in a maximum mass of the combination exceeding 44 tonnes;

(c) the engine capacity;

(d) the maximum engine power output;

(e) the nature of the fuel (petrol, gas oil, LPG, bi-fuel or other);

(f) drive-by sound level;

(g) exhaust emission level (for example Euro III, Euro IV or other).

Semua perubahan atau modifikasi yang melibatkan *'Type'*, *'Variant'* dan *'Version'* hendaklah menjalani proses Kelulusan Jenis Kenderaan (VTA) dan diluluskan *National Committee for Type Approval* (VTA) *and Homologation* bagi tujuan pendaftaran kenderaan.

Bagi modifikasi melibatkan '*Variant*' dan '*Version*', tarikh pelaksanaan peraturan UN adalah sama seperti Model Sedia Ada (*Existing Model*). Pelaksanaan tarikh bagi model sedia ada secara dasarnya adalah berasaskan konsep 2 tahun + 2 tahun kecuali bagi peraturan-peraturan yang ditentukan oleh Jawatankuasa VTA .

Perubahan atau modifikasi lain hanya memerlukan surat notifikasi rasmi daripada pengeluar / pembekal kepada Bahagian Kejuruteraan Automotif, Ibu Pejabat JPJ sahaja.

9. Pengelasan Kenderaan Model Sedia Ada Dan *Facelift*

9.1 Kenderaan Model Sedia Ada

Model sedia ada ialah model kenderaan yang telah memperolehi Kelulusan Jenis Kenderaan (VTA) sebelum sesuatu peraturan baru dikuatkuasakan dan model tersebut masih dalam proses pengeluaran di kilang *(running production).* Peraturan baru ini akan dikuatkuasakan terhadap model sedia ada dalam tempoh sekurang-kurangnya 4 tahun dari tarikh pewartaan peraturan baru tersebut. Bagi penguatkuasaan peraturan baru ini, model sedia ada perlu melalui proses VTA semula sekiranya proses pengeluaran ingin diteruskan oleh pihak pengeluar.

9.2 Kenderaan *Facelift*

Kenderaan *facelift* ialah model kenderaan yang telah memperolehi Kelulusan Jenis Kenderaan (VTA) dan telahpun didaftarkan tetapi kemudiannya ia melalui proses penambahbaikan dari segi aksesori tambahan ataupun perubahan kepada sistem kenderaan itu sendiri. Kebiasaannya, proses ini dilakukan oleh pengilang atau pengeluar kenderaan bagi memberi wajah baru yang lebih menarik untuk merangsang kenaikan jualan kenderaan tersebut.

Dari segi perundangan, pihak pengilang atau pengeluar yang melakukan penambahbaikan atau sebarang modifikasi tambahan kepada model kenderaan sedia ada yang telah berdaftar adalah diwajibkan untuk memaklumkan hal tersebut kepada pihak Jabatan Pengangkutan Jalan (JPJ) khususnya kepada Bahagian Kejuruteraan Automotif yang melaksanakan proses Kelulusan Jenis Kenderaan (VTA). Perkara ini adalah tertakluk di bawah Seksyen 12 Akta Pengangkutan Jalan 1987.

Kenderaan yang layak dikategorikan sebagai kenderaan *facelift* ialah kenderaan yang melalui penambahbaikan. Antara contoh penambahbaikan yang sering dilakukan oleh pengilang atau pengeluar kenderaan adalah:

(i) *Side skirt*
(ii) *Bumper* hadapan/belakang
(iii) Rekabentuk rim

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(iv) Aksesori dalaman seperti *leather seat*

(v) *Spoiler*

Bagi penambahbaikan yang melibatkan komponen yang tersenarai dalam peraturan UN, pihak pengilang atau pengeluar kenderaan tersebut perlu melampirkan salinan sijil pematuhan peraturan UN bagi komponen tersebut bersama surat makluman penambahbaikan model kenderaan yang terlibat.

10. KATEGORI KENDERAAN YANG PERLU MEMBUAT PERMOHONAN VTA

Category L – Motor vehicles with less than four wheels

Category	Definition	Term	Drawing
L1	*A two-wheeled vehicle with an engine cylinder capacity in the case of a thermic engine not exceeding 50 cm3 and whatever the means of propulsion a maximum design speed not exceeding 50 km/h.*	*Moped*	
L2	*A three-wheeled vehicle of any wheel arrangement with an engine cylinder capacity in the case of a thermic engine not exceeding 50 cm3 and whatever the means of propulsion a maximum design speed not exceeding 50 km/h.*	*Moped*	
L3	*A two-wheeled vehicle with an engine cylinder capacity in the case of a thermic engine exceeding 50 cm3 or whatever the means of propulsion a maximum design speed exceeding 50 km/h.*	*Motorcycle solo*	
L4	*A vehicle with three wheels asymmetrically arranged in relation to the longitudinal median plane with an engine cylinder capacity in the case of a thermic engine exceeding 50cm3 or whatever the means of propulsion a maximum design speed exceeding 50km/h(motorcycles with sidecars).*	*Motorcycle with side car*	
L5	*A vehicle with three wheels symmetrically arranged in relation to the longitudinal median plane with an engine cylinder capacity in the case of a thermic engine exceeding 50cm3 or whatever the means of propulsion a maximum design speed exceeding 50 km/h.*	*Motorcycle (tri-cycle)*	
L6	*A vehicle with four wheels whose unladen mass is not more than 350 kg, not including the mass of the batteries in case of electric vehicles, whose maximum design speed is not more than 45 km/h, and whose engine cylinder capacity does not exceed 50 cm3 for spark (positive) ignition engines, or whose maximum net power output does not exceed 4 kW in the case of other internal combustion engines, or whose maximum continuous rated power does not exceed 4 kW in the case of electric engines.* ***Class I*** *- Seats* *- Horizontally confined by a body* *- Roof and roll-over protection* *- Steered by steering wheel* *- Foot Throttle* ***Class II*** *- Saddles but no seats* *- No roof* *- Steered by handle bar* *- Hand throttle control*	*Light Quadricycle*	 

Category L – Motor vehicles with less than four wheels

Category	Definition	Term	Drawing
L7	*A vehicle with four wheels, other than that classified for the category L6,whose unladen mass is not more than 400 kg (550 kg for vehicles intended for carrying goods), not including the mass of batteries in the case of electric vehicles and whose maximum continuous rated power does not exceed 15 kW."* ***Class I*** *- Seats* *- Horizontally confined by a body* *- Roof and roll-over protection* *- Steered by steering wheel* *- Foot Throttle* ***Class II*** *- Saddles but no seats* *- No roof* *- Steered by handle bar* *- Hand throttle control*	*Quadricycle*	 

Category M - power-driven vehicles having at least four wheels and used for the carriage of passengers

Category	Definition	Term	Drawing
M1	*Vehicles used for the carriage of passengers and comprising not more than eight seats in addition to the driver's seat. They may be indicated by following bodywork types:*	*Passenger car*	*See bodywork types below.*
	Body *- Closed, with or without central pillar to side windows.* ***Hood/roof*** *- Fixed, rigid roof. A portion of the roof may, however, be openable.* ***Accommodation*** *- Four or more seats in at least two rows.* ***Doors*** *- Two or four side doors. They may also be rear opening.* ***Windows*** *- Four or more side windows.*	*Saloon*	
	Saloon with a hatch at the rear end of the vehicle.	*Hatchback/Aeroback*	
	Body *- Closed. Rear shape is designed in order to give a larger interior volume.* ***Hood/roof*** *- Fixed, rigid roof. A portion of the roof may, however, be openable.* ***Accommodation*** *- Four or more seats in at least two rows. The row or rows of seats may have forward-foldable backs or be removable to provide a load platform.* ***Doors*** *- Two, three or four side doors and a rear opening* ***Windows*** *- Four or more side windows.*	*Station wagon*	
	Body *- Closed. Usually limited rear volume.* ***Hood/roof*** *- Fixed, rigid roof. A portion of the roof may, however, be openable.* ***Accommodation*** *- Two or more seats in at least 1 row.* ***Doors*** *- Two side doors. They may also be rear opening* ***Windows*** *- Two or more side windows.*	*Coupe*	
	Body *- Openable.* ***Hood/roof*** *- The roof, soft or rigid, has a least two positions: in the first one it covers the body; in the second one it is retracted.* ***Accommodation*** *- Two or more seats in at least 1row.* ***Doors*** *- Two or four side doors.* ***Windows*** *- Two or more side windows.*	*Convertible*	
	Motor vehicle other than those described above, intended for carrying passengers and their luggage or goods, in a single compartment.	*Multipurpose vehicle*	

Category M - power-driven vehicles having at least four wheels and used for the carriage of passengers

Category	Definition	Term	Drawing
M2	*Vehicles used for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass not exceeding 5 t.* *It may be of one or two decks rigid or articulated vehicle and* *may also tow a trailer.* *It may belong to: (See Table 1 - page 33)* *a) one or more of the three classes (Class I, Class II, Class III) in accordance with UNECE Regulations Nos. 36 and 107; or* *b) one of the two classes (Class A, Class B) in accordance with UNECE Regulation No. 52.*	*Bus*	
M3	*Vehicles used for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 t.* *It may be of one or two decks rigid or articulated vehicle and* *may also tow a trailer.* *It may belong to: (See Table 1- page 33)* *a) one or more of the three classes (Class I, Class II, Class III) in accordance with UN ECE Regulations Nos. 36 and 107; or* *b) one of the two classes (Class A, Class B) in accordance with UN ECE Regulation No. 52*	*Bus*	

Category N - power-driven vehicles having at least four wheels and used for the carriage of goods

Category	Definition	Term	Drawing
N1	*Vehicles used for the carriage of goods and having a maximum mass not exceeding 3.5 t. It may also tow a trailer.*	*Goods vehicle*	
N2	*Vehicles used for the carriage of goods and having a maximum mass exceeding 3.5 tonnes but not exceeding 12 t. It may also tow a trailer.*	*Goods vehicle*	
N3	*Vehicles used for the carriage of goods and having a maximum mass exceeding 12 t. It may also tow a trailer.*	*Goods vehicle*	

Category O - Trailers (including semi-trailers)

Category	Definition	Term	Drawing
O1	*A non-powered vehicle used to transport persons or goods and is intended to be towed by a motor vehicle, with a maximum mass not exceeding 0.75 t.*	*Trailer*	
O2	*A non-powered vehicle used to transport persons or goods and is intended to be towed by a motor vehicle, with a maximum mass exceeding 0.75 t, but not exceeding 3.5 t. Types of the trailers are as in Table 2 - page 34.*	*Trailer*	See Table 2 - page 34
O3	*A non-powered vehicle used to transport persons or goods and is intended to be towed by a motor vehicle, with a maximum mass exceeding 3.5 t, but not exceeding 10 t. Types of the trailers are as in Table 2 - page 34.*	*Trailer*	See Table 2 - page 34
O4	*A non-powered vehicle used to transport persons or goods and is intended to be towed by a motor vehicle, with a maximum mass exceeding 10 t. Types of the trailers are as in Table 2 - page 34.*	*Trailer*	See Table 2 - page 34

Table 1: Classes of M2 and M3 vehicles

Regulation	Description	Classes	Definition of classes	Term	Drawing
36 (MS 1794: 2005)	*Single deck rigid or articulated vehicles having a capacity in excess of 22 passengers and an overall*	I	*Vehicles constructed with areas for standing passengers, to allow frequent passenger movement.*	*Stage buses*	
107	*Double deck rigid or Interurban buses articulated vehicles having a capacity in excess of 22 passengers.*	II	*Vehicles constructed principally for the carriage of seated passengers, and designed to allow the carriage of standing passengers in the gangway and/or in an area which does not exceed the space provided for two double*	*Interurban buses*	
		III	*Vehicles constructed exclusively for the carriage of seated passengers.*	Long distance buses e.g.: - touring buses - express buses	
52	*Single deck rigid vehicles having a capacity not exceeding 22 passengers in addition to the driver.*	A	*Vehicles designed to carry standing passengers; a vehicle of this class has seats and may have provisions for standing passengers.*	*Interurban buses e.g.:* *- mini buses*	
		B	*Vehicles not designed to carry standing passengers; a vehicle of this class has no provision for standing passengers.*	*Long distance buses e.g.:* *- touring buses* *- express buses*	

Table 2. Types of trailers of categories O2, O3 and O4

Types	Definition	Drawing
Semi-trailer	*A towed vehicle, in which the axle(s) is (are) positioned behind the centre of gravity of the vehicle (when uniformly loaded), and which is equipped with a connecting device permitting horizontal and vertical forces to be transmitted to the towing vehicle. One or more of the axles may be driven by the towing vehicle.*	
Full trailer	*A towed vehicle having at least two axles, and equipped with a towing device which can move vertically (in relation to the trailer) and controls the direction of the front axle(s), but which transmits no significant static load to the towing vehicle. One or more of the axles may be driven by the towing vehicle.*	
Centre-axle trailer	*A towed vehicle, equipped with a towing device which cannot move vertically (in relation to the trailer) and in which the axle(s) is (are) positioned close to the centre of gravity of the vehicle (when uniformly loaded) such that only a small static vertical load, not exceeding 10 % of that corresponding to the maximum mass of the trailer or a load of 1 000 daN (whichever is the lesser) is transmitted to the towing vehicle. One or more of the axles may be driven by the towing vehicle.*	

Category G – Off Road Vehicle

Category	*Sub - Category*	*Definition*	*Term*	*Drawing*
G	N_1G / M_1G with maximum mass not exceeding 2t	*Vehicles in category N_1 with a maximum mass not exceeding 2 t and vehicles in category M_1 are considered to be off-road vehicles if they have:* *a) At least one front axle and at least one rear axle designed to be driven simultaneously including vehicles where the drive to one axle can be disengaged;* *b) At least one differential locking mechanism or at least one mechanism having a similar effect;* *c) if they can climb a 30 per cent gradient calculated for a solo vehicle; and* *d) they shall satisfy a least five of the following six requirements:* *i) The approach angle shall be at least 25°;* *ii) The departure angle shall be at least 20°;* *iii) The ramp angle shall be at least 20°;* *iv) The ground clearance under the front axle shall be at least 180 mm;* *v) The ground clearance under the rear axle shall be at least 180 mm; and* *vi) The ground clearance between the axles shall be at least 200 mm.*	***Off Road***	
G	$N_1G/N_2G/M_2G/M_3G$ with maximum mass not exceeding 12t	*Vehicles in category N_1 with a maximum mass exceeding 2 t or in category N_2, M_2 or M_3 with a maximum mass not exceeding 12 t are considered to be off-road vehicles either if all their wheels are designed to be driven simultaneously, including vehicles where the drive to one axle can be disengaged, or if the following three requirements are satisfied:* *a) At least one front axle and at least one rear axle are designed to be driven simultaneously, including vehicles where the drive to one axle can be disengaged;*	***Off Road***	

		b) there is at least one differential locking mechanism or at least one mechanism having a similar effect; and *c) they can climb a 25 % gradient calculated for a solo vehicle.*		
G	N_3G / M_3G with maximum mass exceeding 12t	*Vehicles in category M_3 with a maximum mass exceeding 12 t or in category N_3 are considered to be off-road either if the wheels are designed to be driven simultaneously, including vehicles where the drive to one axle can be disengaged, or if the following requirements are satisfied:* *a) At least half the wheels are driven;* *b) there is at least one differential locking mechanism or at least one mechanism having a similar effect;* *c) they can climb a 25 gradient calculated for a solo vehicle;* *d) At least four of the following six requirements are satisfied:* *i) The approach angle shall be at least 25°;* *ii) the departure angle shall be at least 25°;* *iii) the ramp angle shall be at least 25°;* *iv) the ground clearance under the front axle shall be at least 250 mm;* *v) the ground clearance between the axles shall be at least 300 mm; and* *vi) the ground clearance under the rear axle shall be at least 250 mm.*	***Off Road***	 

11.PELAN PELAKSANAAN PERATURAN *UNITED NATIONS* (UN)

IMPLEMENTATION OF 54 UN REGULATIONS

NO	UN	DESCRIPTION	*SERIES*	VEHICLE CATEGORIES															
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
1	R3	Reflex Reflector	02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	R6	Direction Indicators	01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	R7	Front and Rear Position (Side) Lamps, Stop Lamps and End-Outline Marker	02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	R13	Braking	11									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	R13H	Braking	00								✓			✓							
6	R14	Seatbelt Anchorage	06								✓	✓	✓	✓	✓	✓					
7	R15	Exhaust Emission (DOE)	DOE																		
8	R16	Safety Belt	06		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
9	R17	Seats	07								✓	✓	✓	✓	✓	✓					
10	R18	Protection Against Unauthorized Use (M,N)	03									✓	✓		✓	✓					
11	R22	Protective Helmet & Visor for driver & passenger of motorcycle and moped	05																		
12	R24	Diesel Smoke (DOE)	DOE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
13	R25	Head Restraint	04		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
14	R28	Audible Warning Device	00			✓	✓	✓			✓	✓	✓	✓	✓	✓					
15	R30	Pneumatic Tyres (Passenger Vehicle)	02								✓			✓			✓	✓			
16	R36	Construction Of Public Service Vehicles	03									✓	✓								
17	R39	Speedometer	00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
18	R40	Exhaust Emission (Motor Cycle) (DOE)	DOE			✓	✓	✓													
19	R41	Noise (Motor Cycle) (DOE)	DOE			✓															

NO	UN	DESCRIPTION	SERIES	VEHICLE CATEGORIES																
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
20	R43	Safety Glass	00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
21	R46	Rear-view mirror	02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
22	R48	Installation Of Lights	05								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
23	R49	Diesel Emission (DOE)	DOE								✓	✓	✓	✓	✓	✓				
24	R50	Lights (L - Category)	00	✓	✓	✓	✓	✓	✓	✓										
25	R51	Noise (DOE)	DOE	✓	✓	✓	✓	✓	✓	✓										
26	R52	Construction Of Small Capacity Public Service Vehicle	01									✓	✓							
27	R53	Installation Of Lights (L - Category)	01			✓														
28	R54	Pneumatic Tyres	00									✓	✓	✓	✓	✓			✓	✓
29	R58	Rear Under-run Protection	02												✓	✓			✓	✓
30	R62	Protection Against Unauthorized Use (L - Category)	00	✓	✓	✓	✓	✓	✓	✓										
31	R66	Strength Of Superstructure (Large Passenger Vehicle)	02									✓	✓							
32	R69	Rear Marking Plates for Slow Moving Vehicle	01											✓	✓	✓	✓	✓	✓	✓
33	R70	Rear Marking Plates for Heavy and Long Vehicle	01													✓	✓	✓	✓	✓
34	R73	Lateral Protection	01												✓	✓			✓	✓
35	R75	Tyre (L - Category)	00	✓	✓	✓	✓	✓												
36	R78	Braking (L Category)	03	✓	✓	✓	✓	✓												
37	R79	Steering Equipment	01								✓	✓	✓	✓	✓	✓				
38	R80	Seat (Large Passenger Vehicle)	02									✓	✓							
39	R81	Rear-view Mirrors (L - Category)	00	✓	✓	✓	✓	✓	✓	✓										

NO	UN	DESCRIPTION	*SERIES*	VEHICLE CATEGORIES																
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
40	R83	Gaseous Pollutants (DOE)	DOE								✓	✓		✓	✓					
41	R90	Replacement Brake Lining Assemblies (After market)	02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
42	R93	Front Under-run Protection	00												✓	✓				
43	R94	Protection of the occupants in the Event Of a Frontal Collision	02								✓									
44	R95	Protection of the occupants in the Event Of a Frontal Collision	03								✓			✓						
45	R97	Vehicle Alarm System	01								✓			✓						
46	R98	Gas-Discharge Headlamps	01			✓					✓	✓	✓	✓	✓	✓				
47	R99	Gas-Discharge Light Source	00								✓	✓	✓	✓	✓	✓				
48	R100	Construction Of Battery Electric Vehicle	00								✓	✓	✓	✓	✓	✓				
49	R104	Retro-reflective Markings for Heavy and Long Vehicles	00											✓	✓	✓		✓	✓	✓
50	R108	Retreaded Pneumatic Tyres	00								✓			✓			✓	✓		
51	R109	Retreaded Pneumatic Tyres	00									✓	✓	✓	✓	✓			✓	✓
52	R112	Headlamps (Asymmetrical)	01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
53	R113	Headlamps (Symmetrical)	00	✓	✓	✓	✓	✓	✓	✓										
54	R116	Protection Against Unauthorized Use	00								✓			✓						

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ADDITIONAL 24 UN REGULATIONS IMPLEMENTATION FROM 01 JANUARY 2015

NO	UN	DESCRIPTION	*SERIES*	VEHICLE CATEGORIES															
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
1	R4	Rear Registration Plate Lamp	00								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	R10	Radio Interference Suppression	04	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	R11	Door Latches and Hinges	03								✓			✓						
4	R19	Front Fog Lamps (If fitted)	04			✓	✓	✓		✓	✓	✓	✓	✓	✓	✓				
5	R21	Interior Fittings	01								✓									
6	R23	Reversing Lamps	00								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7	R26	External Projection	03								✓									
8	R34	Prevention of Fire Risks	02								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9	R37	Filament Lamps	03	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10	R38	Rear Fog Lamps	00			✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11	R44	Child Restraint Systems (after market)	04																	
12	R45	Headlamp Cleaners	01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
13	R48	Installation Of Lights (HID) (2000 Lumen above)	05								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Installation of Lights (Other Lights) (2000 Lumen below)	03								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14	R55	Mechanical Coupling (If fitted)	01								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15	R60	Driver Operated Control (Motorcycle)	00	✓		✓														
16	R61	External Projection	00											✓	✓	✓				
17	R64	Temporary Spare Tyres (If fitted TPMS)	02								✓			✓						
18	R77	Parking Lamps (If fitted)	00								✓	✓	✓	✓	✓	✓				

NO	UN	DESCRIPTION	*SERIES*	VEHICLE CATEGORIES															
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
19	R89	Speed Limitation Device (Mandatory for M2, M3, N2 and N3)	00								✓	✓	✓	✓	✓	✓				
20	R91	Side-marker Lamps (If fitted)	00								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
21	R101	Emission of Carbon Dioxide and Fuel Consumption	01								✓			✓						
22	R117	Tyres with regard to rolling sound emissions	02								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
23	R119	Cornering Lamp (If fitted)	01								✓	✓	✓	✓	✓	✓				
24	R121	Hand Controls, Tell-tales and indications	00								✓	✓	✓	✓	✓	✓				

ADDITIONAL 22 UN REGULATIONS IMPLEMENTATION FROM 01 JULY 2017

NO	UN	DESCRIPTION	*SERIES*	VEHICLE CATEGORIES															
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
1	R9	Noise of Three-Wheeled Vehicle	07		✓		✓	✓												
2	R12	Steering Mechanism	04								✓			✓						
3	R27	Advance Warning Triangle	04	Mandatory based on vehicle category under C&U																
4	R47	Exhaust Emission (Moped)	00	✓	✓															
5	R56	Headlamps (Moped)	00	✓	✓															
6	R57	Headlamps (L - Category)	02			✓	✓	✓	✓	✓										
7	R63	Noise (Moped)	01	✓																
8	R65	Special Warning Lamps (If fitted)	00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9	R72	Halogen Headlamps (HS1 for L - Category)	01			✓	✓	✓												
10	R74	Installation of Light (Moped)	01	✓																
11	R76	Headlamps (Moped)	01	✓	✓				✓											
12	R82	Halogen Headlamps (HS2 for Moped)	01	✓	✓				✓											
13	R85	Measurement of Engine Power	00								✓	✓	✓	✓	✓	✓				
14	R87	Daytime Running Light (If fitted)	00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
15	R105	Vehicle for the Carriage of Dangerous Goods	05											✓	✓	✓		✓	✓	✓
16	R107	General Construction of Buses and Coaches	06									✓	✓							
17	R115	LPG and CNG Retrofit System (If fitted)	00								✓	✓	✓	✓	✓	✓				

NO	UN	DESCRIPTION	*SERIES*	VEHICLE CATEGORIES															
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
18	R123	Adaptive Front-Lighting Systems (AFS) (If fitted)	01								✓	✓	✓	✓	✓	✓				
19	R125	Forward Field of Vision of Drivers	01								✓									
20	R126	Partitioning Systems	00								✓									
21	R128	Light Emitting Diode (LED) Light Sources (If fitted)	00	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
22	R129	Enhanced Child Restraint Systems (ECRS) (after market)	00																	

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ADDITIONAL 19 UN REGULATIONS IMPLEMENTATION FROM 01 JANUARY 2020

NO	UN	DESCRIPTION	*SERIES*	VEHICLE CATEGORIES															
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
1	R29	Cabs of Commercial Vehicles	03											✓	✓	✓				
2	R31	Halogen Sealed Beam Headlamps (If fitted)	03								✓	✓	✓	✓	✓	✓				
3	R32	Rear-End Collision	00								✓									
4	R35	Arrangement of Foot Controls	00								✓									
5	R59	Replacement Silencing Systems (After market)	00								✓			✓						
6	R67	LPG Vehicles (If fitted)	01								✓	✓	✓	✓	✓	✓				
7	R68	Measurement of the Maximum Speed	00								✓			✓						
8	R88	Retroreflective Tyres (L-Category)	00	✓																
9	R92	Replacement Silencing Systems (Motor Cycles) (After Market)	01	✓	✓	✓	✓	✓												
10	R102	Close Coupling Device (CCD) (If fitted)	00												✓	✓			✓	✓
11	R103	Replacement Pollution Control Devices (After market)	00								✓			✓						
12	R110	CNG and LPG Vehicles (If fitted)	01								✓	✓	✓	✓	✓	✓				
13	R111	Rollover Stability (N and O Vehicles Category)	00												✓	✓			✓	✓
14	R114	Airbag Module for Replacement (After market)	00								✓	✓	✓	✓	✓	✓				
15	R118	Fire Resistance of Interior Materials	02										✓							
16	R124	Replacement Wheels for Passenger Cars (After market)	00								✓						✓	✓		

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NO	UN	DESCRIPTION	*SERIES*	VEHICLE CATEGORIES															
				L1	L2	L3	L4	L5	L6	L7	M1	M2	M3	N1	N2	N3	O1	O2	O3	O4
17	R127	Pedestrian Safety	00								✓			✓						
18	R130	Lane Departure Warning System (LDWS) (If fitted)	00									✓	✓		✓	✓				
19	R131	Advanced Emergency Braking Systems (AEBS) (If fitted)	01									✓	✓		✓	✓				

LAMPIRAN 1

(BORANG INI DIBERI PERCUMA)

IBU PEJABAT
JABATAN PENGANGKUTAN JALAN MALAYSI,
BAHAGIAN KEJURUTERAAN AUTOMOTIF
ARAS 4, NO.26, JALAN TUN HUSSEIN
PERSIARAN PERDANA, PRESINT 4
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN
62620 PUTRAJAYA.

PK(O).JPJ.KA.01(L1)
TEL : 03-88928000
FAX : 03-88811085
Emel : teknik@jpj.gov.my

BORANG SENARAI SEMAK PERMOHONAN KELULUSAN JENIS KENDERAAN (VEHICLE TYPE APPROVAL)

NAMA PEMILIK /
PEMBAWA DOKUMEN : …… NO.K/P. :……

ALAMAT : ……

……

NO. TELEFON / NO. H/P : ……..Emel : ……

BUATAN KENDERAAN : ……..MODEL : ……

BERIKUT DISERTAKAN DOKUMEN BAGI PERMOHONAN INI (*Tandakan √ yang disertakan*)

1. Surat rasmi permohonan Kelulusan Jenis Kenderaan dari pemohon ☐
2. Jadual I (Schedule I) ☐
3. Jadual II (Schedule II) ☐
4. Gambar kenderaan (pandangan hadapan, sisi dan belakang) ☐
5. Penjelasan mengenai nombor casis dan enjin kenderaan (Vehicle Indentification Number) ☐
6. Sijil-sijil atau laporan ujian (test report) bagi setiap perkara dalam Jadual I (Schedule I) ☐
7. Katalog (Brochure) ☐
8. Surat Pelepasan Tanggungan ☐
9. Borang Maklumat Sijil Kelulusan Jenis Kenderaan ☐
10. Lukisan kejuruteraan yang menunjukkan dimensi kenderaan ☐
11. Dokumen berkaitan panduan membaiki dan penukaran 9 komponen ☐
12. Lain-lain …… (Cth: Sijil VTA dalam Bahasa Inggeris) ☐

Saya dengan ini mengaku bahawa segala butiran yang dikemukakan di atas adalah benar serta bertanggungjawab sepenuhnya terhadap segala kemungkinan.

Tarikh: …… Tandatangan :……
Nama / Syarikat :……
……
Jawatan : ……

(UNTUK KEGUNAAN PEJABAT)

1. Petugas kaunter penerimaan dan penyerahan
   Tarikh terima: …… No. Rujukan :……
   Permohonan Diterima / Ditolak *: ……
   Tandatangan : …… Jawatan :……

(Semua maklumat hendaklah dilengkapi bagi mempercepatkan proses kelulusan)

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LAMPIRAN 2

Contoh surat rasmi permohonan VTA

LETTERHEAD SYARIKAT PEMOHON

Ruj. Kami :
Tarikh :

Pengarah
Bahagian Kejuruteraan Automotif
Ibu Pejabat Jabatan Pengangkutan Jalan Malaysia,
Aras 4, No.26, Jalan Tun Hussein, Presint 4,
Pusat Pentadbiran Kerajaan Persekutuan,
62100 Putrajaya.

YBhg. Dato',

PERMOHONAN KELULUSAN JENIS KENDERAAN (VTA) BAGI KENDERAAN BUATAN XXX MODEL YYY (KOD MODEL: ABC12345) BAGI KATEGORI M1

Dengan segala hormatnya merujuk kepada perkara di atas.

2. Dimaklumkan bahawa pihak syarikat AAA ingin memohon Kelulusan Jenis Kenderaan (VTA) bagi kenderaan buatan XXX model YYY (Kod Model: ABC12345) bagi kategori M1.

3. Sehubungan itu, dilampirkan bersama dokumen permohonan VTA dalam 2 salinan untuk tindakan lanjut pihak YBhg. Dato'.

4. Kerjasama dan perhatian pihak YBhg. Dato' berhubung perkara ini amatlah dihargai.

Sekian terima kasih.

(NAMA WAKIL SYARIKAT)

Jawatan

Nama syarikat

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LAMPIRAN 3

JADUAL I (SCHEDULE I)

Type Approval Performance Requirements (L - Motorcycles)

Item No.	Subject	Vehicle Category	National Acceptance (Construction & Use) Rules 1959	Actual Compliance (Performance)	Date of Approval
1	Reflector Performance	L1 – L7	UN R3.02		
2	Direction Indicators	L1 – L7	UN R6.01		
3	Front and Rear Position (Side) Lamps, Stop Lamps and End-Outline Marker	L1 – L7	UN R7.02		
4	Noise of three-wheeled vehicles	L2, L4, L5	UN R9.07		
5	Radio Interference Suppression	L1 – L7	UN R10.04		
6	Front Fog Lamps (If fitted)	L3, L4, L5, L 7	UN R19.04		
7	Audible Warning Device	L3, L4, L5,	UN R28.00		
8	Filament Lamps	L1 – L7	UN R37.03		
9	Rear Fog Lamps (If fitted)	L3, L4, L5, L 7	UN R38.00		
10	Speedometer	L1 – L7	UN R39.00		
11	Exhaust emission	L3, L4, L5 L1, L2	Peraturan-Peraturan Kualiti Alam Sekeliling (Kawalan Pelepasan Daripada Enjin Petrol) 1996. UN R40.00 / (DOE) UN R47.00 / (DOE)		

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12	Noise emission	L3 L1	Peraturan-Peraturan Kualiti Alam Sekeliling (Bunyi Bising Kenderaan Motor) 1987. UN R41 (DOE) UN R63.00 (DOE)		
13	Headlamp Cleaners (If fitted)	L1 – L7	UN R45.01		
14	Lights	L1 – L7	UN R50.00		
15	Installation of Lights	L3 L1	UN R53.01 / UN R74.01		
16	Driver Operated Control (Motorcycle)	L1 & L3	UN R60.00		
17	Protection Against Unauthorised Use	L1 – L7	UN R62.00		
18	Special warning lamps (If fitted)	L1 – L7	UN R65.00		
19	Halogen Headlamps (HS1 & HS2 for motorcycles)	L3, L4, L5	UN R72.01 / UN R82.01		
20	Tyres	L1, L2, L3, L4, L5,	MS 1394 UN R75.00		
21	Brake Performance	L1 – L5	UN R78.03		
22	Rear View Mirrors	L1 – L7	UN R81.00		
23	Daytime Running Light	L1 – L7	UN R87.00		
24	Gas Discharge Head Lamp (If fitted)	L3	UN R98.01		
25	Headlamps	L1 – L7	UN R56.00 / UN R57.00 / R76.01 R112.01 / R113.00		
26	Light Emitting Diode (LED) light sources (if fitted)	L1 – L7	UN R128.00		
27	Electric Motorcycles - Specifications	L1 – L7	MS 2413		

LAMPIRAN 4

JADUAL I (SCHEDULE I)

Type Approval Performance Requirements (M – Passenger Vehicle)

Item No.	Subject	Vehicle Category	National Acceptance (Construction & Use Rules 1959)	Actual Compliance (Performance)	Date of approval
1	Reflex Reflectors	M1,M2,M3	UN R3.02		
2	Rear Registration Plate Lamp	M1,M2,M3	UN R4.00		
3	Indicator Performance	M1,M2,M3	UN R6.01		
4	Brake lamp performance	M1,M2,M3	UN R7.02		
5	Radio Interference Suppression	M1,M2,M3	UN R10.04		
6	Door Latches and Hinges (M1 only)	M1	UN R11.03		
7	Steering mechanism	M1	UN R12.04		
8	Brake performance	M1 M2,M3	UN R13.11 / R13H.00		
9	Safety Belt Anchorages	M1,M2,M3	MS 75 UN R14.06		
10	Exhaust Emission	M1,M2,M3	Peraturan-Peraturan Kualiti Alam Sekeliling (Kawalan Pelepasan Daripada Enjin Petrol/Diesel) 1996. UN R15 / R24 / R49 / R83 (DOE)		
11	Safety Belt	M1,M2,M3	MS 1175 UN R16.06		
12	Seats	M1,M2,M3	UN R17.07 / R80.02		
13	Protection Against Unauthorised Use	M2,M3 M1	MS 1742 UN R18.03 / R97.01 / R116.00		
14	Front Fog Lamps (If fitted)	M1,M2,M3	UN R19.04		
15	Interior Fittings (M1 only)	M1	UN R21.01		

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16	Reversing Lamps	M1,M2,M3	UN R23.00		
17	Head Restraint	M1,M2,M3	UN R25.04		
18	External Projection (M1 only)	M1	UN R26.03		
19	Advance warning triangles	M1,M2,M3	UN R27.04		
20	Audible Warning Device	M1,M2,M3	UN R28.00		
21	Tyres	M1,M2,M3	MS 149 MS 224 (Retreaded) UN R30.02 / R54.00 UN R108.00 / R109.00 (Retreaded) FMVSS 109		
22	Prevention of Fire Risks	M1,M2,M3	UN R34.02		
23	Construction of Public Service Vehicles	M2, M3	UN R36.03 / R52.01		
24	Filament Lamps	M1,M2,M3	UN R37.03		
25	Rear Fog Lamps	M1,M2,M3	UN R38.00		
26	Speedometer	M1,M2,M3	UN R39.00		
27	Safety Glass	M1,M2,M3	MS 595 / UN R43.00		
28	Headlamp Cleaners	M1,M2,M3	UN R45.01		
29	Rear View Mirrors	M1,M2,M3	UN R46.02		
30	Installation of Lights	M1,M2,M3	MS ISO 303 UN R48.05 (≥ 2000 lumen) UN R48.03 (< 2000 lumen)		
31	Noise Emission	M1,M2,M3	Peraturan-Peraturan Kualiti Alam Sekeliling (Bunyi Bising Kenderaan Motor) 1987. UN R51 (DOE)		

32	Mechanical Coupling (if Fitted)	M1,M2,M3	UN R55.01		
33	Temporary Spare Tyres (if fitted) (M1 only)	M1	UN R64.02		
34	Special warning lamps (if fitted)	M1,M2,M3	UN R65.00		
35	Strength of Super Structure (Large Passenger Vehicle) (M2 & M3 only)	M2,M3	UN R66.02		
36	Parking Lamps (If fitted)	M1,M2,M3	UN R77.00		
37	Steering Equipment	M1,M2,M3	UN R79.01		
38	Measurement of Engine Power	M1,M2,M3	UN R85.00		
39	Daytime Running Light (If fitted)	M1,M2,M3	UN R87.00		
40	Speed Limitation Device (Mandatory for M3)	M3	UN R89.00		
41	Side-marker Lamps (If fitted)	M1,M2,M3	UN R91.00		
42	Protection of the Occupants in the Event of a Frontal Collision (M1 only)	M1	UN R94.02		
43	Protection of the Occupants in the Event of a Lateral Collision (M1 only)	M1	UN R95.03		
44	Gas Discharge Headlamps / Light Source	M1,M2,M3	UN R98.01 / R99.00		
45	Construction of Battery Electric Vehicle	M1,M2,M3	UN R100.00		
46	Emission of Carbon Dioxide and Fuel Consumption (EEV and M1 only)	M1	UN R101.01		

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47	General construction of buses and coaches	M2,M3	UN R107.06		
48	Headlamps (Asymmetrical)	M1,M2,M3	UN R112.01		
49	LPG and CNG Retrofit System (If fitted)	M1,M2,M3	UN R115.00		
50	Tyres with regard to rolling sound emission	M1,M2,M3	UN R117.02		
51	Cornering Lamp (If fitted)	M1,M2,M3	UN R119.01		
52	Hand Controls, Tell-tales and indications	M1,M2,M3	UN R121.00		
53	Adaptive front-lighting systems (AFS) (If fitted)	M1,M2,M3	UN R123.01		
54	Forward field of vision of drivers	M1	UN R125.01		
55	Partitioning systems (If fitted)	M1	UN R126.00		
56	Light Emitting Diode (LED) light sources (If fitted)	M1,M2,M3	UN R128.00		

LAMPIRAN 5

JADUAL I (SCHEDULE I)

Type Approval Performance Requirements (G/N – Machinery/Commercial Vehicle)

Item No.	Subject	Vehicle Category	National Acceptance (Construction & Use Rules 1959)	Actual Compliance (Performance)	Date of Approval
1	Power to weight ratio	N1,N2,N3	Rule of the motor vehicle (C&U) 1959. (Minimum 6hp/t)		
2	Reflex Reflectors	N1,N2,N3	UN R3.02		
3	Rear Registration Plate Lamp	N1,N2,N3	UN R4.00		
4	Indicator Performance	N1,N2,N3	UN R6.01		
5	Brake Lamp Performance	N1,N2,N3	UN R7.02		
6	Radio Interference Suppression	N1,N2,N3	UN R10.04		
7	Door Latches and Hinges (N1 only)	N1	UN R11.03		
8	Steering mechanism	N1	UN R12.04		
9	Brake Performance	N1,N2,N3	UN R13.11 / R13H.00		
10	Safety Belt Anchorages	N1,N2,N3	MS 75 UN R14.06		
11	Exhaust emission (Petrol/LPG/CNG engine)	N1,N2,N3	Peraturan-Peraturan Kualiti Alam Sekeliling (Kawalan Pelepasan Daripada Enjin Petrol) 1996. UN R15 / R83 (DOE)		
12	Safety Belts	N1,N2,N3	MS1175 UN R16.06		

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13	Seats	N1,N2,N3	UN R17.07		
14	Protection Against Unauthorised Use	N2,N3 N1	MS 1742 UN R18.03 / R97.01 / R116.00		
15	Protection Against Unauthorised Use	N2,N3	MS 1742 UN R18.03 / R97.01 / R116.00		
16	Front Fog Lamps (If fitted)	N1,N2,N3	UN R19.04		
17	Reversing Lamps	N1,N2,N3	UN R23.00		
18	Smoke emission (Diesel Engine)	N1,N2,N3	Peraturan-Peraturan Kualiti Alam Sekeliling (Kawalan Pelepasan Daripada Enjin Disel) 1996. UN R24 / R49 (DOE)		
19	Head Restraint	N1,N2,N3	UN R25.04		
20	Audible Warning Device	N1,N2,N3	UN R28.00		
21	Tyres	N1,N2,N3	MS 1394 MS 224 (Retreaded) UN R30.02 / R54.00 UN R108.00 / R109.00 (Retreaded) FMVSS 119		
22	Prevention of Fire Risks	N1,N2,N3	UN R34.02		
23	Filament Lamps	N1,N2,N3	UN R37.03		
24	Rear Fog Lamps	N1,N2,N3	UN R38.00		
25	Speedometer	N1,N2,N3	UN R39.00		
26	Safety Glass	N1,N2,N3	MS 595 UN R43.00		

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P(KA)

27	Headlamp Cleaners	N1,N2,N3	UN R45.01		
28	Rear View Mirrors	N1,N2,N3	UN R46.02		
29	Installation of Lights	N1,N2,N3	M.S ISO 303 UN R48.06 (HID) UN R48.03 (Other Lights)		
30	Noise Emission	N1,N2,N3	Peraturan-Peraturan Kualiti Alam Sekeliling (Bunyi Bising Kenderaan Motor) 1987. UN R51 (DOE)		
31	Mechanical Coupling (if Fitted)	N1,N2,N3	UN R55.01		
32	Rear Underrun Protection	N2,N3	UN R58.02		
33	External Projection	N1,N2,N3	UN R61.00		
34	Temporary Spare Tyres (If fitted) (N1 only)	N1	UN R64.02		
35	Special warning lamps (if fitted)	N1,N2,N3	UN R65.00		
36	Rear Marking Plates for Slow Moving Vehicles	N1,N2,N3	UN R69.01		
37	Rear Marking Plates for Heavy and Long Vehicles	N3	UN R70.01		
38	Lateral Protection	N2,N3	UN R73.01		
39	Parking Lamps (If fitted)	N1,N2,N3	UN R77.00		

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40	Steering Equipment	N1,N2,N3	UN R79.01		
41	Measurement of Engine Power	N1,N2,N3	UN R85.00		
42	Daytime Running Light (If fitted)	N1,N2,N3	UN R87.00		
43	Speed Limitation Device (Mandatory for N2 & N3)	N2,N3	UN R89.00		
44	Side-marker Lamps (If fitted)	N1,N2,N3	UN R91.00		
45	Front Underrun Protection	N2,N3	UN R93.00		
46	Protection of the Occupants in the Event of a Lateral Collision (N1 only)	N1	UN R95.03		
47	Gas-Discharge Headlamps / Light Source	N1,N2,N3	UN R98.01 / R99.00		
48	Battery Electric Vehicles (If any)	N1,N2,N3	UN R100.00		
49	Emission of Carbon Dioxide and Fuel Consumption (EEV and N1 only)	N1	UN R101.01		
50	Vehicles for the carriage of dangerous goods	N1,N2,N3	UN R105.05		
51	Retro-reflective Markings for Heavy and Long Vehicles	N1,N2,N3	MS 828 UN R104.00		

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	Head Lamp Performance (Asymmetrical)	N1,N2,N3	UN R112.01		
53	LPG and CNG Retrofit System (If fitted)	N1,N2,N3	UN R115.00		
54	Tyres with regard to rolling sound emission	N1,N2,N3	UN R117.02		
55	Cornering Lamp (If fitted)	N1,N2,N3	UN R119.01		
56	Hand Controls, Tell-tales and indications	N1,N2,N3	UN R121.00		
57	Adaptive front-lighting systems (AFS) (If fitted)	N1,N2,N3	UN R123.01		
58	Light Emitting Diode (LED) light sources (If fitted)	N1,N2,N3	UN R128.00		

LAMPIRAN 6

JADUAL I (SCHEDULE I)

Type Approval Performance Requirements (O – Trailer/Semi Trailer)

Item No.	Subject	Vehicle Category	National Acceptance (Construction & Use Rules 1959)	Actual Compliance (Performance)	Date of Approval
1	Reflex Reflectors	O1 – O4	UN R3.02		
2	Rear Registration Plate Lamp	O1 – O4	UN R4.00		
3	Indicator Performance	O1 – O4	UN R6.01		
4	Brake lamp performance	O1 – O4	UN R7.02		
5	Radio Interference Suppression	O1 – O4	UN R10.04		
6	Brake performance	O1 – O4	UN R13.11		
7	Reversing Lamps	O1 – O4	UN R23.00		
8	Tyres	O1 – O4	MS 1394 MS 224 (Retreaded) UN R30.02 / R54.00 UN R108.00 / R109.00 (Retreaded) FMVSS 119		
9	Prevention of Fire Risks	O1 – O4	UN R34.02		
10	Filament Lamps	O1 – O4	UN R37.03		
11	Rear Fog Lamps	O1 – O4	UN R38.00		
12	Installation of Lights	O1 – O4	MS ISO 303 UN R48.06 (HID) UN R48.03 (Other Lights)		
13	Mechanical Coupling	O1 – O4	UN R55.01		
14	Rear Underrun Protection	O3,O4	UN R58.02		

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15	Special Warning Lamps (If fitted)	O1 – O4	UN R65.00		
16	Rear Marking Plates for Slow Moving Vehicles	O1 – O4	UN R69.01		
17	Rear Marking Plates for Heavy and Long Vehicle	O1 – O4	UN R70.01		
18	Lateral Protection (Goods Vehicles)	O3,O4	UN R73.01		
19	Side-marker Lamps (if fitted)	O1 – O4	UN R91.00		
20	Retro-Reflective Markings For Heavy and Long Vehicles	O2, O3, O4	MS 828 UN R104.00		
21	Vehicle for the Carriage of Dangerous Goods	O2, O3, O4	UN R105.05		
22	Tyres with regard to rolling sound emission	O1 – O4	UN R117.02		
23	Light Emitting Diode (LED) Light Sources (If fitted)	O1 – O4	UN R128.00		

LAMPIRAN 7

JADUAL I (SCHEDULE I)

Type Approval Performance Requirements (Rebuilt Vehicle)

Item No.	Subject	Vehicle Category	National Acceptance (Construction & Use Rules 1959)	Actual Compliance (Performance)	Date of Approval
1	Indicator Performance	N1,N2,N3	UN R6.01		
2	Brake Lamp Performance	N1,N2,N3	UN R7.02		
3	Tyres	N1,N2,N3	MS 1394 MS 224 (Retreaded) UN R30.02 / R54.00 UN R108.00 / R109.00 (Retreaded) FMVSS 119		
4	Safety Glass	N1,N2,N3	MS 595 UN R43.00		
5	Head Lamp Performance	N1,N2,N3	UN R112.01		
6	Front Underrun Protection	N1,N2,N3	UN R93.00		

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KEJURUTERAAN AUTOMOTIF
P(KA)

LAMPIRAN 8

JADUAL II (SCHEDULE II)

APPLICATION FOR TYPE APPROVAL OF MOTOR VEHICLE

Reference No :

Date of submission.

Part 1: General Information

1. Applicant's name and address

_____

_____

_____

_____

_____

2. Make (Manufacturer) : _____

Model Name : _____

Model Code : _____

Model Year : _____

3. Type and configuration body :

4. Country of manufacture

_____

5. Proposed usage

_____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

Part II. Specifications

(*) Please state/specify performance standard according to MS/ UNR/ FMVSS

1. Dimensions

(a) Overall length (mm) _____

(b) Overall width (mm) _____

(c) Overall height (mm) _____

(d) Wheel base (mm) _____

i. Between first and second axles _____

ii. Between second and third axles _____

iii. Between third and fourth axles _____

(e) Ground clearance (mm)

i. Unladen _____

ii. Fully laden _____

(f) Wheel treads (mm)

i. Front axles _____

ii. Rear axles _____

(g) Body overhang (mm)

i. Front end _____

ii. Rear end _____

(h) Chassis frame overhang (mm)

(For chassis-cab model)

i. Front end _____

ii. Rear end _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

(i) Minimum turning circles (mm)

i. Kerb to kerb _____

ii. Body to body _____

(j) Gravity height (mm) _____

2. Weight

(a) Kerb Weight (kg)

i. Front axles _____

ii. Rear axles _____

(b) Number of axles _____

(c) Axle Rating

i. Front axles (kg) _____

ii. Rear first axles (kg) _____

iii. Rear second axles (kg) _____

(d) Design gross vehicle weight (kg) _____

3. Maximum stable inclination angle _____

4. Seating capacity (person) _____

5. Drive: Front wheel/Rear wheel/4 wheel _____

6. Spacing for the display of registration number plate:

Motorcycle :

Front / Rear (Min 145 mm x 150 mm) – vertical _____

Front / Rear (Min 295 mm x 50 mm) – horizontal _____

Other Than Motorcycle :

Front / Rear (Min 280 mm x 200 mm) – vertical _____

Front / Rear (Min 450 mm x 90 mm) – horizontal _____

7. Engine

(a) Name of producer _____

(b) Type and model _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

(c) Position of mounting _____

(d) Type of fuel _____

(e) Engine capacity _____

(f) Cycle _____

(g) No of cylinder _____

(h) Cylinder arrangement _____

(i) Bore X Stroke _____

(j) Piston Displacement _____

(k) Valve arrangement _____

(l) Compression ratio _____

(m) Max. net power (KW @ r.p.m.) _____

(n) Max. net torque (kN m @ r.p.m) _____

(o) Type of supercharger or turbocharger _____

(p) Emission gas control system _____

(q) Lubricating system

(i) Lubricating method _____

(ii) Type of oil pump _____

(iii) Type of oil filter _____

(iv) Capacity of lubricating oil (l) _____

(v) Type of oil cooler _____

(r) Cooling system

(i) Cooling method _____

(ii) Type of radiator _____

(iii) Capacity of cooling water _____

(iv) Type of water pump _____

(v) Type of thermostat _____

(s) Fuel Consumption _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

7A. Electric Motor (Hybrid or Electric Only)

(a) Name of producer _____

(b) Type and model _____

(c) Position of mounting _____

(d) Motor Power (Maximum) (KW) _____

(e) Motor Power (Rated) (KW) _____

(f) Max. net torque (kN m) _____

(g) Type of supercharger or turbocharger _____

(h) Battery Type _____

(i) Battery Capacity _____

(h) Battery Consumption (Wh / 100 km) _____

8. Fuel system

(a) Fuel tank _____

(i) Material _____

(ii) Capacity (litre) _____

(iii) Position _____

(b) Fuel Pump

(i) Type _____

(ii) Flow rate _____

(c) Fuel Filter

(i) Type _____

(ii) Flow rate _____

(d) Fuel Injection

(i) Type _____

(ii) Model _____

(iii) Method _____

(e) Carburetor

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

(i) Type _____

(ii) Diameter of throttle valve (mm) _____

(iii) Diameter of venture (mm) _____

(iv) Type of choke valve _____

(f) Air cleaner

(i) Type _____

(ii) Number _____

(g) LPG/NGV/CNG equipment

(i) Make and Model of LPG/NGV/CNG kit _____

(ii) Make and model of container _____

(iii) Capacity of container _____

(iv) Location of container _____

(v) Supplier and authorised installer _____

9. Transmission system

(a) Type of clutch _____

(b) No. of speed _____

(c) Type of transmission _____

(d) Torque convertor pressure _____

(e) Gear ratio (to 1) _____

1 st gear _____

2nd gear _____

3rd gear _____

4th gear _____

5th gear _____

6th gear _____

Reverse gear _____

Differential gear _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

Wheel hub reduction _____

10. Running system

(a) Front axle type _____

(b) Rear axle type _____

(c) Tyre size

(i) Front tyre _____

(ii) Rear tyre _____

(iii) Spare tyre _____

(d) Rim specification

(i) Front wheel (size & material) _____

(ii) Rear wheel (size & material) _____

(iii) Spare wheel (size & material) _____

(e) Optional tyre and rim size

(i) Front wheel _____

(ii) Rear wheel _____

(iii) Spare wheel _____

(f) Air pressure

(i) Front wheel _____

(ii) Rear wheel _____

(iii) Spare wheel _____

(g) Ply rating

(i) Front wheel _____

(ii) Rear wheel _____

(iii) Spare wheel _____

(h) Maximum load on tyre

(i) Front wheel _____

(ii) Rear wheel _____

(iii) Spare wheel _____

11. Suspension system

(a) Front axle

(i) Type of suspension _____

(ii) Type of spring _____

(iii) Material of spring _____

(iv) Dimensions of main spring _____

(v) Number of main spring _____

(vi) Dimensions of auxiliary spring _____

(vii) Number of auxiliary spring _____

(b) Rear axle

(i) Type of suspension _____

(ii) Type of spring _____

(iii) Material of spring _____

(iv) Dimensions of main spring _____

(v) Number of main spring _____

(vi) Dimensions of auxiliary spring _____

(vii) Number of auxiliary spring _____

(c) Type of shock absorber

(i) Front wheel _____

(ii) Rear wheel _____

(iii) Name of producer _____

(d) Type of stabilizer

(i) Front wheel _____

(ii) Rear wheel _____

(iii) Name of producer _____

12. Steering System

(a) Steering wheel positions (LHS/RHS) _____

(b) Front wheel alignment

(i) Amount of side slip _____

(c) Booster

(i) Type _____

\

(ii) Name of producer _____

(d) Locking device

(i) Type _____

(ii) Name of producer _____

(iii) Mounting position _____

13. Brake System

(a) Service brake (Attached test report for service brake)

(i) Type

-Front _____

-Rear _____

(ii) Size of brake _____

(iii) Control system and

No. of braking wheel _____

(iv) Brake pipes/hoses

-Material _____

(v) Booster

-Type _____

-Magnification _____

(vi) Braking efficiency

-Front _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

-Rear _____

(vii) Other safety device incorporated _____

(ABS/SLIPS/LSD or others) _____

(b) Parking brake (Attached test report for service brake)

(i) Type _____

(ii) Braking efficiency

-Front _____

-Rear _____

(c) Auxiliary brake (if any)

(i) Type _____

(ii) Performance* _____

(d) Emergency brake (if any)

(i) Type _____

(ii) Performance* _____

(e) Separate brake (if any)

(i) Type _____

(ii) Performance* _____

14. Chassis frame

(a) Type _____

(b) Cross section dimension _____

(c) Type of material _____

(d) Type of side protection device _____

(e) Sample of chassis code number _____

15. Body

(a) Type _____

(d) Any back protection device _____

16. Equipment for passengers

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

(a) Seat belt anchorage

(i) Type _____

(ii) Number _____

(iii) Performance* _____

(b) Safety Belt

(i) Name of producer _____

(ii) Type _____

(iii) Number _____

(iv) Performance* _____

(c) Head restraint

(i) Name of producer _____

(ii) Type _____

(iii) Number _____

(iv) Performance* _____

(d) Doors

(i) Type _____

(ii) Number _____

(iii) Performance* _____

17. Glass

(a) Front windscreen

(i) Name of producer _____
(ii) Kind/Type of glass _____

(iii) Thickness _____

(iv) % of light transmission _____

(v) Performance* _____

(b) Side windows

(i) Name of producer _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

(ii) Kind/Type of glass _____

(iii) Thickness _____

(iv) % of light transmission _____

(v) Performance* _____

(c) Rear screen

(i) Name of producer _____

(ii) Kind/Type of glass _____

(iii) Thickness _____

(iv) % of light transmission _____

(v) Performance* _____

18. Noise prevention device

(a) Silencer

(i) Name of product _____

(ii) Type _____

(iii) Number _____

(b) Noise level (dBA)

(i) Stationary _____

(Attached test report and method test) _____

(ii) Accelerated running _____

(Attached test report and method test) _____

(iii) Performance* _____

19. Exhaust emission control device (Attached test report)

(a) Type _____

(b) Position and direction

of exhaust pipe opening _____

(c) HSU level/K Value/Opacimeter Value _____

(free accelerated test) _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

(d) CO Value (mg/km) _____

(e) Performance* _____

20. Electrical System

(a) Operating voltage _____

(b) Type of Ignition system _____

(c) Type of electric wave noise suppression or prevention device _____

(d) Spark Plug

(i) Type _____

(ii) Gap _____

(e) Battery capacity (AH) _____

(f) Charging system

(i) Type _____

(ii) Output _____

(g) Starting system

(i) Type _____

(ii) Output _____

(h) Immobilizer

(i) Type _____

(ii) Performance* _____

21. Lighting equipment

(a) Head lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Automatic or manual

low and high adjuster _____

(v) Performance* _____

(b) Front fog lamps

(i) Name of producer _____

(ii) Numbers, colour ...watts _____

(vii) Performance* _____

(c) Front turning lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Rate of flashing _____

(v) Performance* _____

(d) Front side turning lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(e) Daytime running lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(f) Rear reflex reflector

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(g) High mount stop lamps (3rd brake light)

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(h) Tail lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(i) Stop lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(j) Rear turning lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(v) Rate of flashing _____

(k) Hazard light (front/rear)

(i) Name of producer _____

(ii) Type _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(v) Rate of flashing _____

(l) Reversing lamps

(i) Name of producer _____

(ii) Type _____

(iii) Number and colour _____

(iv) Performance* _____

(m) Parking lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(n) License lamps (front/rear)

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(o) Rear fog lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(p) Rear side marker lamps

(i) Name of producer _____

(ii) Type _____

(iii) Numbers, colour ...watts _____

(iv) Performance* _____

(q) Filament lamps

(i) Name of producer _____

(ii) Type _____

(v) Numbers, colour,.....watts _____

(iv) Performance* _____

22. Warning device

(a) Horn

(i) Name of producer _____

(ii) Type _____

(iii) Level of loudness _____

(iv) Performance* _____

23. Rear view mirror (Automatic or manual adjustment)

(a) Left

(i) Type _____

(ii) Dimension and radius curvature _____

(b) Right

(i) Type _____

(ii) Dimension and radius curvature _____

(c) Inside

(i) Type _____

(ii) Dimension and radius curvature _____

(iii) One way or two ways adjustment _____

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

24. Wipers

(a) Type _____

(b) Number _____

(c) Performance* _____

25. Meters and dash board

(a) Speedometer

(i) Type _____

(ii) Maximum Speed _____

(ii) Performance* _____

(b) Tachometer

(i) Type _____

(ii) Performance* _____

(c) Odometer

(i) Type _____

(ii) Performance* _____

(d) Other meter fitted

(i) Type _____

(ii) Performance* _____

26. Maximum Speed (With Speed Limiter – If fitted) _____

27. Other accessories fitted

(a) _____

(b) _____

(c) _____

(d) _____

(e) _____

* Standard Compliance

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

Part III. Declaration

The following documents shall be submitted:-

1. Test data/ reports to be attached

   The test data/ report as per the requirement as stipulated in schedule 1 of the motor vehicles (Type Approval and Recalling) rules 1998 shall be attached.

I hereby certify that to the best of my knowledge, the above information are correct and I fully understand that should any of the above information is found to untrue, the application may be rejected or the type approval certificate, if issued, may be cancelled or suspended.

Date:

(Signature)

Name: _____

Position : _____

DATO' IR. HJ. MOHAMAD
KEJURUTERAAN AUTOMOTIF
P(KA)

LAMPIRAN 9

Gambar kenderaan bagi permohonan VTA

Pandangan 3D

Pandangan Hadapan

DATO' IR. HJ. MOHAMAD
KEJURUTERAAN AUTOMOTIF
P(KA)

Pandangan Sisi

Pandangan Belakang

DATO' IR. HJ. MOHAMAD
KEJURUTERAAN AUTOMOTIF
P(KA)

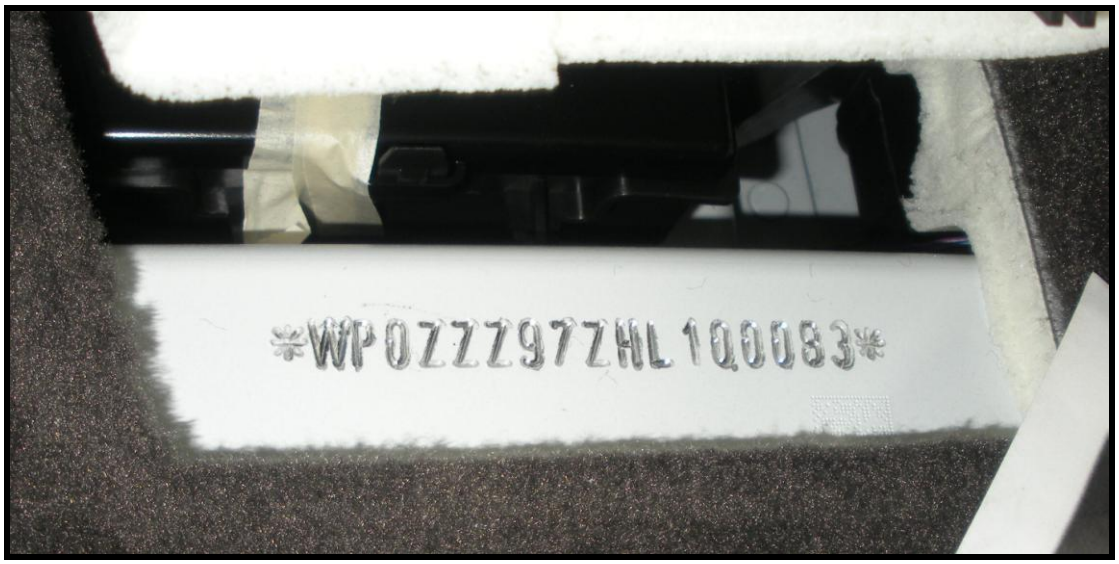
LAMPIRAN 10 (a)

CONTOH PENJELASAN VIN DAN NOMBOR ENJIN

PENJELASAN VIN:

WPO ZZZ 98 Z C S 1 0 0001
1 2 3 4 5 6 7 8 9

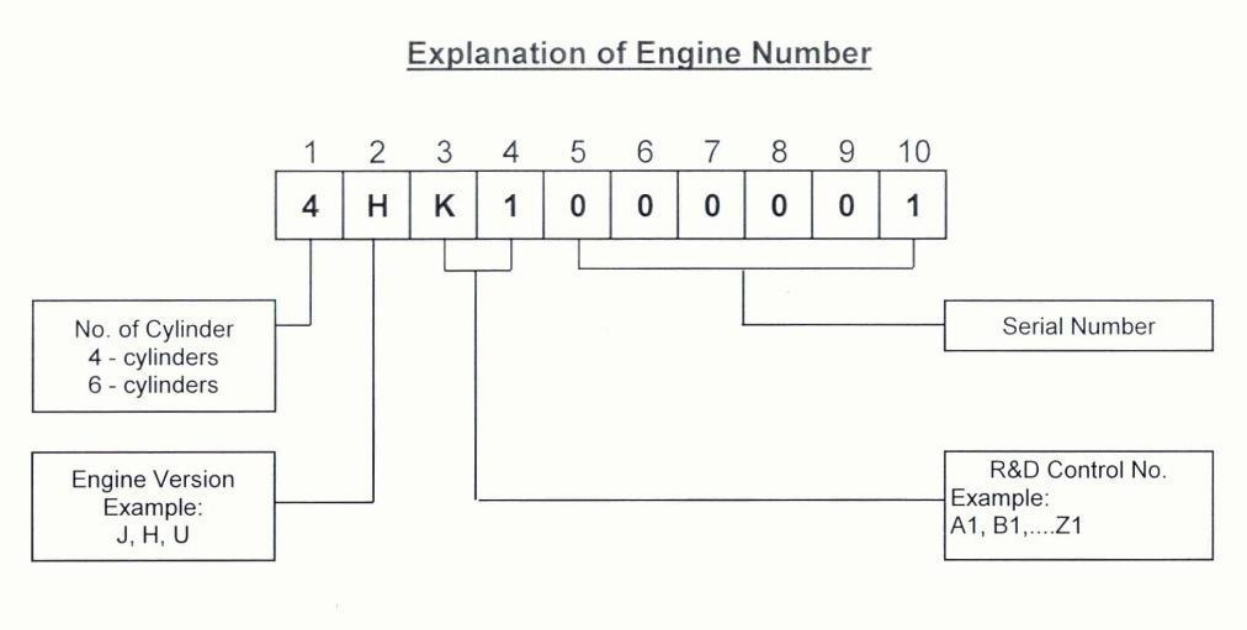
1	Welt-Herstellercode / Worldwide Manufacturer code
2+4	Füllzeichen / Filler Symbol
3+7	Fahrzeugtyp / Vehicle Type
5	Modelljahr / Model Year
6	Herstellungsort / Location of Production
8	Variantenspezifische Information / Variant Specific Information
9	Serienzählnummer / Production Number



LAMPIRAN 10 (b)

CONTOH PENJELASAN VIN DAN NOMBOR ENJIN

PENJELASAN NOMBOR ENJIN:



LAMPIRAN 11

Contoh Sijil Pematuhan Peraturan UN

GRAND-DUCHÉ DE LUXEMBOURG
Ministère du Développement durable et des Infrastructures
Département des Transports
L-2938 Luxembourg

SOCIÉTÉ NATIONALE DE CERTIFICATION ET D'HOMOLOGATION
s.à.r.l.
Registre de Commerce: B 27180
L-5201 Sandweiler

Référence: E13*39R00*39R00*9731*01

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Luxembourg, le 27 octobre 2016

E13

Communication concernant (1) / Communication concerning (1):

- ~~**la délivrance d'une homologation**~~ / ~~approval granted~~
- **l'extension d'homologation** / approval extended
- ~~**le refus d'homologation**~~ / ~~approval refused~~
- ~~**le retrait d'homologation**~~ / ~~approval withdrawn~~
- ~~**l'arrêt définitif de la production**~~ / ~~production definitely discontinued~~

d'un type de véhicule à moteur en ce qui concerne l'appareil indicateur de vitesse, y compris son installation en application du Règlement N° 39
of a vehicle type with regard to the speedometer equipment including its installation pursuant to Regulation N° 39

Numéro d'homologation:
Approval number: E13*39R00*39R00*9731*01

Marque d'homologation:
Approval mark: E13 39R – 009731

1. **Marque de fabrique ou de commerce du véhicule à moteur:**
Trade name or mark of the vehicle:

2. **Type du véhicule:**
Vehicle type:

Dénomination(s) commerciale(s):
Commercial description(s):

3. **Nom et adresse du constructeur:**
Manufacturer's name and address:

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DATO' IR. HJ. MOHAMAD
KEJURUTERAAN AUTOMOTIF
P(KA)

LAMPIRAN 12

Contoh Katalog / *Brochure*

DRIVETRAIN	Fuel type	Diesel/Electric
	Cubic capacity (cc)	1997
	Maximum power bhp (Kw)	163 (120) @ 3850 (Diesel) 37 (27) @ 2000to 7500 (Electric)
	Maximum torque lb/ft (Nm)	225 (300) @ 1750 (Diesel) 150 (200) (Electric)
	Induction	Turbocharger
	Gearbox	6 speed Electronically Controlled Manual Gearbox (EGC)
BRAKES	Front and rear discs	
SUSPENSIONS AND TYRES	Front suspension	Pseudo MacPherson with helical springs and dampers
	Rear suspension	Multi-arm with helical springs and multi-valve dampers
	Size - 18" wheels (Alloy)	245/45 R 18
	Spare wheel	Repair Kit
FUEL TANK CAPACITY (Ltrs)	72	
PERFORMANCE (driver only)	Maximum speed (mph)	132
	Acceleration 0-62 mph (sec)	9.5
FUEL CONSUMPTION	Urban drive cycle MPG (litres/100km)	70.6 (4)
	Extra Urban drive cycle MPG (litres/100km)	67.3 (4.2)
	Combined drive cycle MPG (litres/100km)	68.9 (4.1)
EMISSIONS INFORMATION	Regulated Emission Standard	Euro 5
	Carbon Dioxide (CO_2) emissions (g/km)	107
VEHICLE WEIGHT INFORMATION (KG)	Gross vehicle weight	2325
	Kerb weight	1910
	Gross train weight	3125
	Maximum braked trailer weight	1100
	Maximum tow ball weight	75
DIMENSIONS (mm)	Length	4823
	Width at handles/mirrors folded/mirrors unfolded	1864/1920/2068
	Maximum height	1525
	Wheelbase	2815
	Front wheel track	1592
	Rear wheel track	1564
	Boot volume (dm^3) with rear seats in place to parcel shelf VDA/Litres	400/423
	Height of boot under parcel shelf at Row 2 seat back	422
	Load floor length - rear seats in place	1021
	Minimum load floor width	1376

DATO' IR. HJ. MOHAMAD
KEJURUTERAAN AUTOMOTIF
P(KA)

LAMPIRAN 13

PERJANJIAN UNTUK KELULUSAN JENIS KENDERAAN (VTA) DAN HOMOLOGASI

Saya dengan ini mengisytiharkan bahawa semua maklumat yang dikemukakan didalam permohonan saya adalah benar dan saya faham sepenuhnya bahawa sekiranya sebarang maklumat didapati palsu, permohonan saya akan ditolak atau sekiranya sijil kelulusan jenis telah dikeluarkan, ianya akan dibatalkan.

Saya dengan ini bersetuju untuk membenarkan Jabatan Pengangkutan Jalan (JPJ) Malaysia mengenakan sebarang tindakan berasaskan Akta Pengangkutan Jalan 1987 sekiranya terdapat maklumat / pengisytiharaan saya didapati palsu.

Bagi tujuan kelulusan :

(i) Saya dengan ini bersetuju untuk menanggung semua kos bagi tujuan pemeriksaan / kelulusan permohonan saya.

(ii) Saya bersedia untuk menanggung semua kos yang disebabkan oleh kerosakan teknikal kenderaan sepanjang tempoh pemeriksaan dan tidak akan mengambil tindakan undang-undang terhadap pihak JPJ.

(iii) Saya dengan ini bersetuju untuk memaklumkan kepada Jabatan Pengangkutan Jalan (JPJ) Malaysia sebarang perubahan / pengubahsuaian dalam masa selewat-lewatnya 14 hari selepas pengubahsuaian dilakukan secara bertulis.

(iv) Saya dengan ini bersetuju untuk memenuhi apa jua keperluan yang telah ditetapkan bagi tujuan kelulusan permohonan saya.

Pemohon:		Saksi:	
Tandatangan:		Tandatangan:	
Nama:		Nama:	
Jawatan:		Jawatan :	
Cop Rasmi :		Cop Rasmi :	
Tarikh :		Tarikh :	

DATO' IR. HJ. MOHAMAD
KEJURUTERAAN AUTOMOTIF
P(KA)

LAMPIRAN 14

BORANG MAKLUMAT SIJIL KELULUSAN JENIS KENDERAAN (*VEHICLE TYPE APPROVAL*)

BUATAN	
NAMA MODEL	
KOD MODEL	
MODEL TAHUN	
JENIS / PREFIX NOMBOR ENJIN/ MOTOR ELEKTRIK	**……. / ……,** **…….Cylinder, ……Stroke**
KAPASITI / KUASA ENJIN (KW)	
BAHAN BAKAR (RON)	
BILANGAN TEMPAT DUDUK	
TRANSMISI (Speed)	
JENIS BADAN	
KEGUNAAN	
KOD BUATAN	
NEGARA PEMBUAT (CBU/CKD)	
NAMA & ALAMAT PEMOHON	

Pengesahan Syarikat:

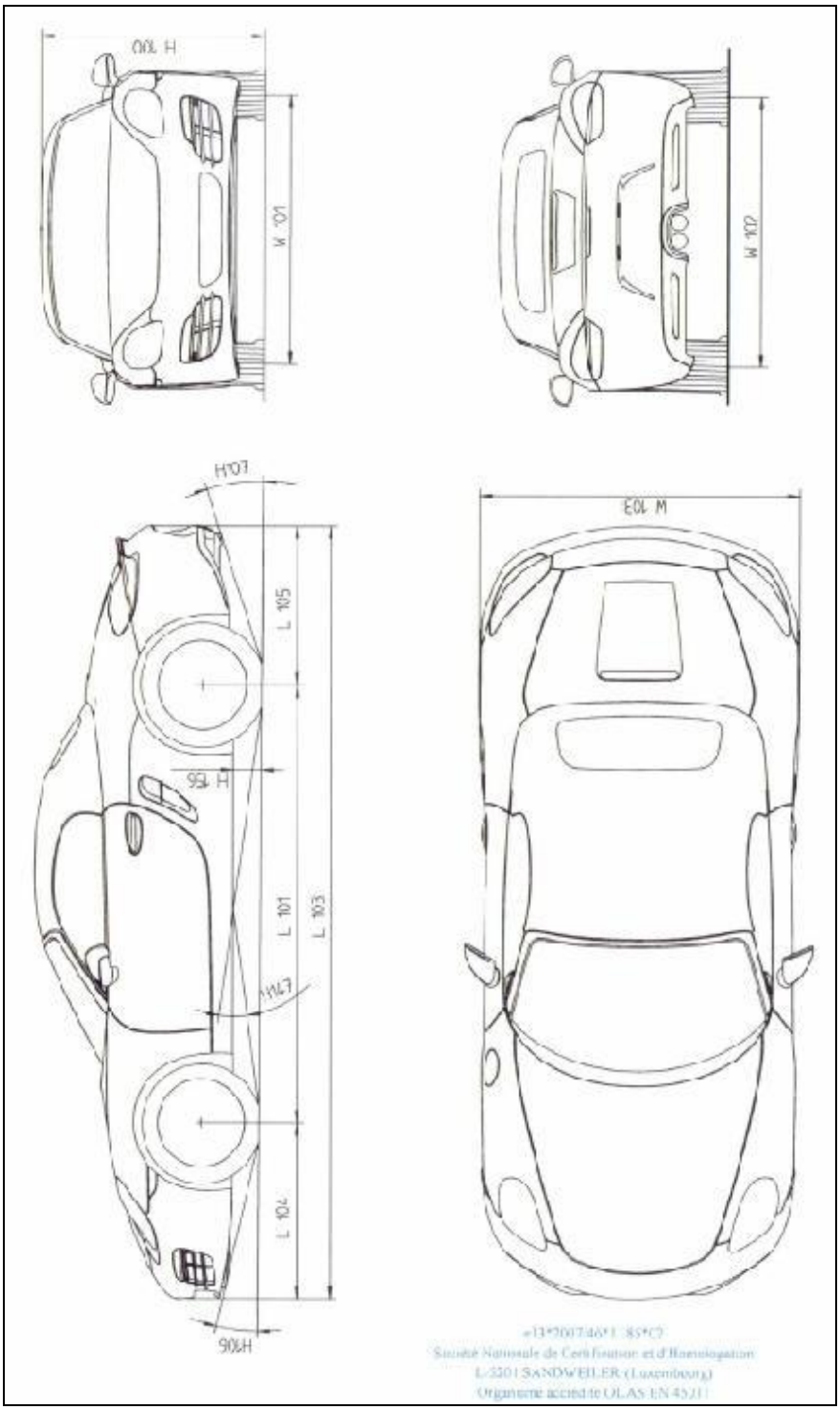
……

(Nama Syarikat:)

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

LAMPIRAN 15

Contoh Lukisan Kejuruteraan



LAMPIRAN 16

Contoh Salinan AP / Laporan Kastam

K 9

1. Konsainor (Nama dan Alamat) / Consignor (Name and Address)

SENDIRI

Kod Konsainor/Consignor Code

2. Konsaini (Nama dan Alamat) / Consignee (Name and Address)

3. Agen Yang Diberi Kuasa (Nama dan Alamat) / Authorised Agent (Name and Address)

Kod Agen/Agent Code

4. Cara Pengangkutan/Mode of Transport

5. Tujuan Import/Purpose of Import

6. Nama Pemohon/Name of Applicant

Kuala Lumpur

7. No. Kad Pengenalan/Pasport/Identity Card/Passport No.

810729715333

8. Jawatan Pemohon/Designation of Applicant

9. Negeri — GERMANY — Kod/Code

Dari/Place of Origin — GERMANY — Kod/Code

10. Dihantar Dari/Consigned From — JEPUN

11. Pelabuhan/Tempat Import/Port/Place of Import — PELABUHAN PASIR GUDANG

12. Lokasi (Kod Negeri dan Daerah) / Location (Code for State and District) — JOHOR

13. Saya mengesahkan bahawa akuan ini benar dan lengkap / I certify that the declaration is true and complete

Tarikh/Date: 28/12/13

Tandatangan dan Cop Syarikat Pemohon / Signature and Company Stamp of Applicant

14. Bil. No.	15. Keterangan Penuh Barangan/Description of Goods in Full
	MERCEDES BENZ 250SL
	CHASIS NO. : 113 043 12 002303
	ENGINE NO. : 129982 12 001115 — 2496 CC

14. Bil. No.	16. No. Kod Tarif/Tariff Code No.	17. Unit Tarif/Tariff Unit	18. Kuantiti/Quantity	19. Harga Satu Unit H.I.T. (RM) / Unit Cost C.I.F. (RM)	20. Jumlah Nilai H.I.T. (RM) / Total Value C.I.F. (RM)
1	8703.23.383	UNIT	1		

UNTUK KEGUNAAN RASMI/FOR OFFICIAL USE

Pejabat Pengeluar Lesen (Nama dan Alamat)/Licence Issuing Office (Name and Address): KEMENTERIAN PERDAGANGAN ANTARABANGSA DAN INDUSTRI

DILULUSKAN KEPADA SIMON JEROME VENDARGON

Syarat-syarat khas/Special conditions

23. No. Lesen/Licence No.: M072/0001/0114-KL

24. No. Rujukan/Reference No.: MITI41101031492014

Tarikh Tamat/Date of Expiry: 08 07 2014

Tarikh/Date: 09 01 2014

HAJARIAH ABU KASIM
b/p Ketua Setiausaha Kementerian Perdagangan Antarabangsa & Industri

Lanjutan/Extension

Pembatalan/Cancellation

26. Tarikh Dilanjutkan/Date Extended

27. No. Lesen Baru/New Licence No.

28. Tarikh/Date

Tandatangan dan Cop Rasmi/Signature and Official Stamp b/p. Ketua Pengarah Kastam/for Director General of Customs

UNTUK KEGUNAAN JABATAN KASTAM - LESEN ASAL DAN SALINAN KASTAM HENDAKLAH DIISI
FOR CUSTOMS DEPARTMENT USE - TO BE COMPLETED IN BOTH THE ORIGINAL AND CUSTOMS COPY

29. Bil. No.	30. Nama Vesel/Penerbangan/Kenderaan / Name of Vessel/Flight/Conveyance	31. Tarikh Import / Date of Import	32. No. Borang Pengakuan Kastam / Customs Declaration Form No.	33. Jumlah Import / Total Import (Kuantiti/Quantity)	34. Baki Akan Diimport / Balance to be Imported (Kuantiti/Quantity)	35. T/Tangan Pegawai Kastam / Signature of Customs Officer
01	WAN HAI 265	22/01	J510 1007157/14	1 UNIT	NIL	SYAHRIZATE AB GHAFFAR

Nota: Pengakuan ini dikehendaki di bawah Perintah ini dan menurut Akta Kastam 1967/Note: This declaration is required under this Order and in accordance with Customs Act 1967

LAMPIRAN 17

Contoh surat pengisytiharan pegawai yang diberi kuasa

LETTERHEAD SYARIKAT PEMOHON

Ruj. Kami :
Tarikh :

Pengarah
Bahagian Kejuruteraan Automotif
Ibu Pejabat Jabatan Pengangkutan Jalan Malaysia
Aras 4, No 26, Jalan Tun Hussein, Presint 4
Pusat Pentadbiran Kerajaan Persekutuan
62100 Putrajaya

YBhg. Dato',

PENGISYTIHARAN NAMA PEGAWAI YANG DIBERI KUASA UNTUK MENANDATANGANI SEBARANG DOKUMEN PERMOHONAN KELULUSAN JENIS KENDERAAN (VTA)

Dengan segala hormatnya merujuk kepada perkara di atas.

2. Dimaklumkan bahawa pihak syarikat AAA ingin mengisytiharkan nama pegawai yang diberi kuasa untuk menandatangani sebarang dokumen permohonan Kelulusan Jenis Kenderaan (VTA). Berikut merupakan maklumat pegawai yang telah dipilih:

No.	Nama Pegawai	Jawatan	Nombor telefon	Email
1.				
2.				

3. Sehubungan itu, hanya pegawai seperti nama di atas sahaja yang layak untuk menandatangani sebarang dokumen permohonan Kelulusan Jenis Kenderaan (VTA).

4. Kerjasama dan perhatian pihak YBhg. Dato' berhubung perkara ini amatlah dihargai.

Sekian terima kasih.

(NAMA WAKIL SYARIKAT)

Jawatan

Nama syarikat

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

LAMPIRAN 18

Borang Maklumat Kenderaan pada *Windscreen*

BUATAN :	
MODEL :	
KOD MODEL :	
TRANSMISI :	
MODEL TAHUN :	
KAPASITI ENJIN :	
TARIKH PEMERIKSAAN :	

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

LAMPIRAN 19

9 Komponen Pembaikan Kemalangan

JSP

JPJ.KA.PT.01(L1)

BODY REPAIR MANUAL

Kegunaan Pejabat

BORANG MAKLUMAT PEMBAIKAN/PENUKARAN
9 STRUKTUR PANEL KENDERAAN (KEMALANGAN)

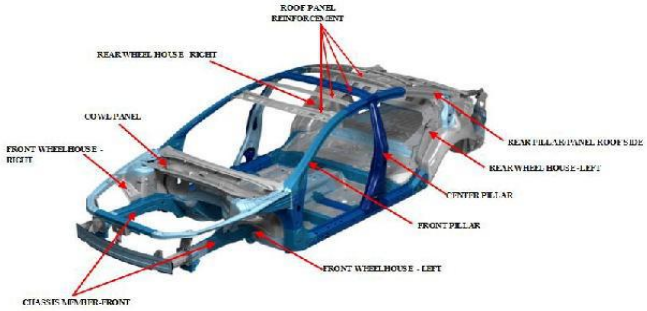
1. MAKLUMAT KENDERAAN

BUATAN KENDERAAN :
MODEL KENDERAAN :
KOD MODEL :
KEUPAYAAN ENJIN :
JENIS BADAN :
MODEL TAHUN :

2. BERIKUT DISERTAKAN MAKLUMAT / DOKUMEN 9 STRUKTUR PANEL PENUKARAN/PEMBAIKAN
(Tandakan (/) pada yang berkenaan)

BIL	ALAT GANTI	STATUS	
		ADA	TIADA
1.	*Cowl Panel*		
2.	*Wheelhouse – Front*		
3.	*Wheelhouse – Rear*		
4.	*Front Pillar*		
5.	*Centre Pillar*		
6.	*Rear Pillar/Panel Roof Side*		
7.	*Roof Panel Reinforcement*		
8.	*Chassis Frame*		
9.	*Chassis Panel*		

3. SENARAI STRUKTUR PANEL KENDERAAN YANG MEMPUNYAI CASIS JENIS *MONOCOQUE*



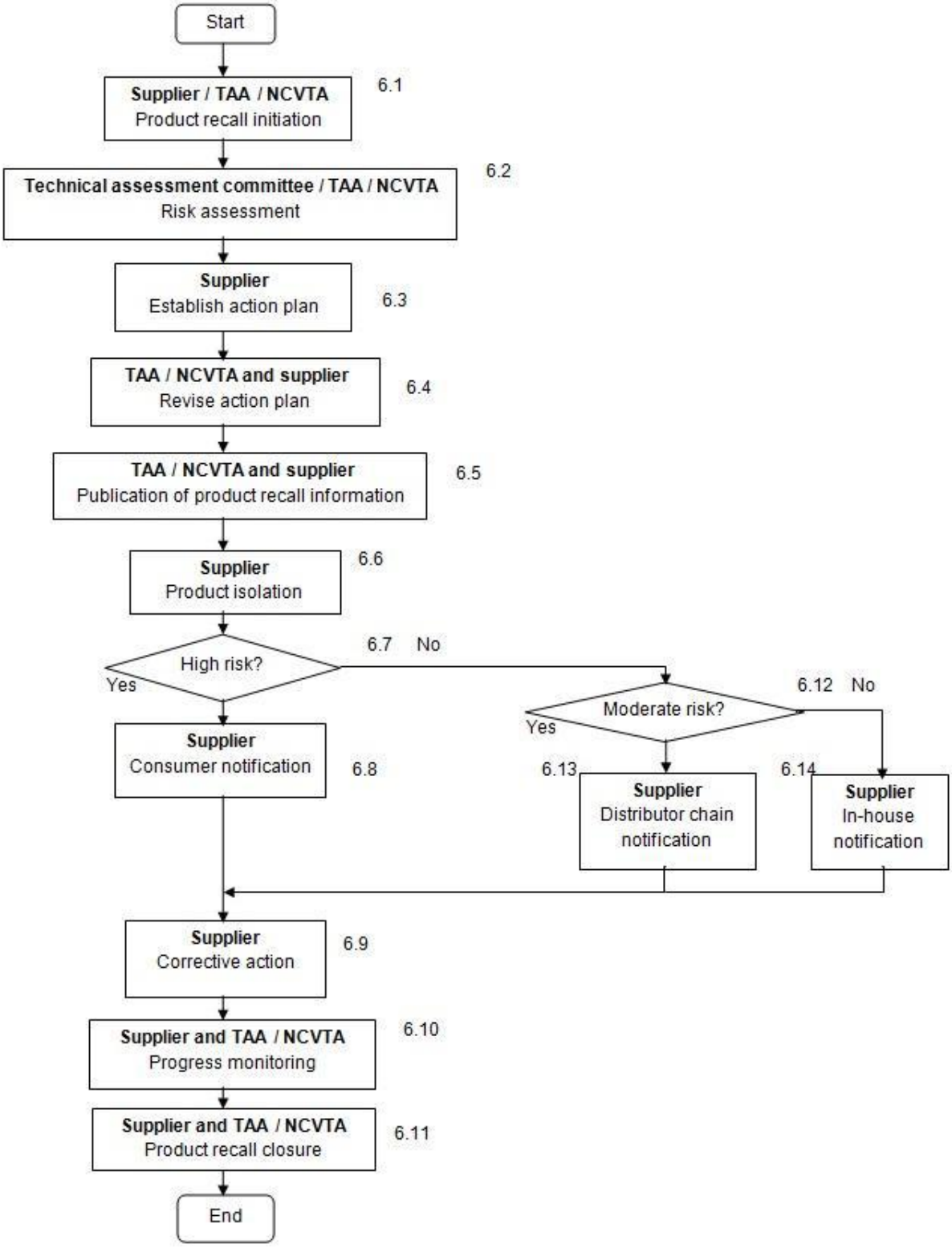
Saya akui bahawa maklumat yang diberikan adalah benar dan bertanggungjawab ke atas maklumat yang dikemukakan kepada pihak Jabatan Pengangkutan Jalan.

Tandatangan :
Nama :
No Kad Pengenalan :

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

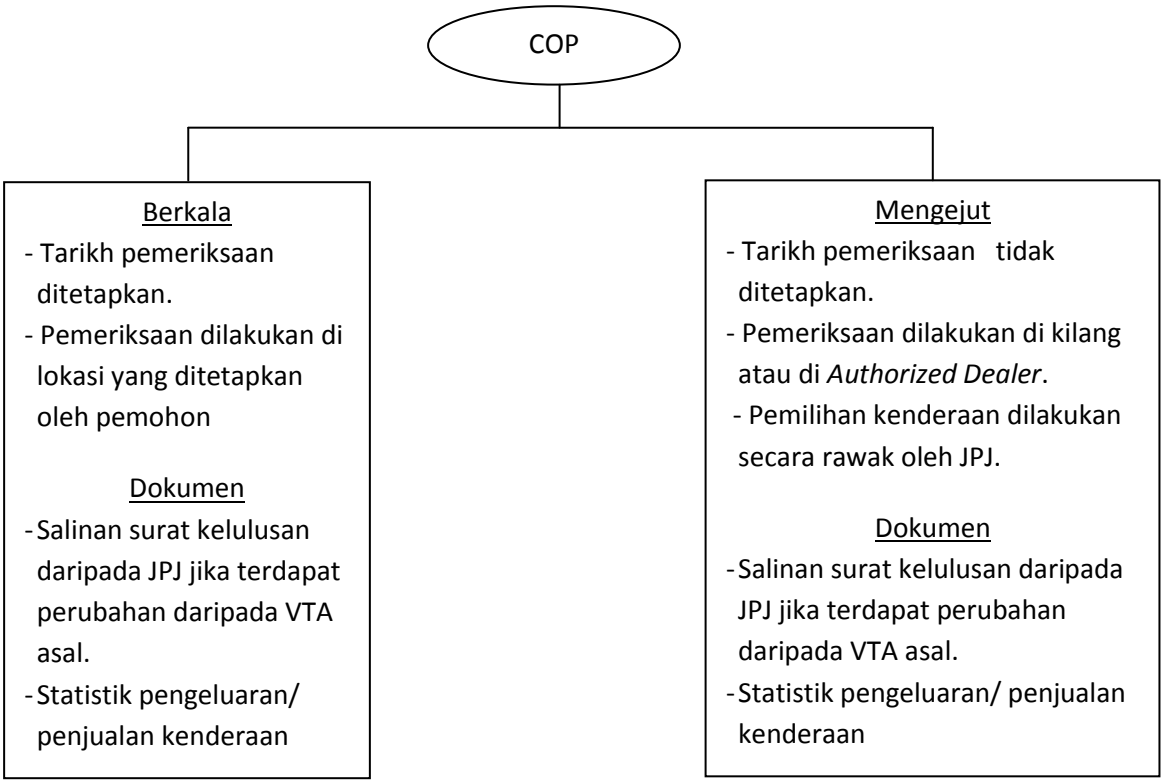
Prosedur Pemanggilan Semula *(Recall)*

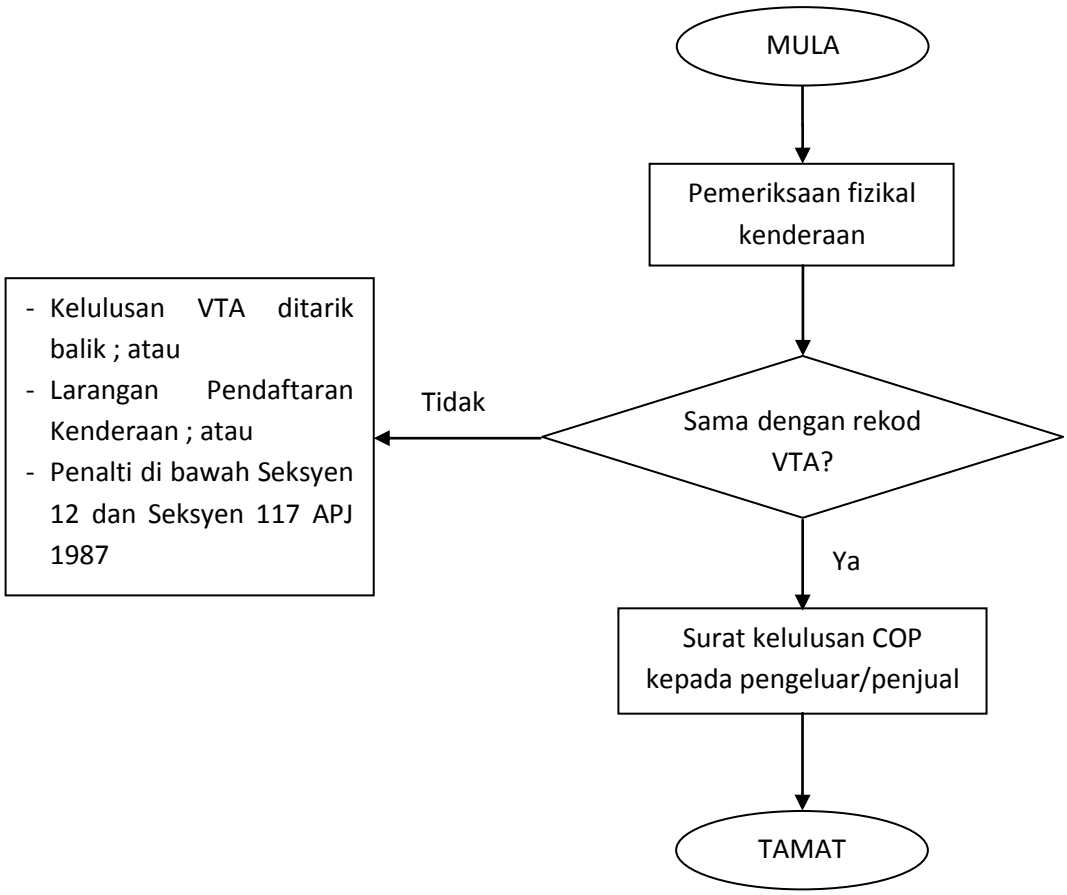
LAMPIRAN 20



LAMPIRAN 21

CARTA ALIR PROSES *CONFORMITY OF PRODUCTION* (COP) BAGI KELULUSAN JENIS KENDERAAN (VTA)





LAMPIRAN 22

Contoh Format *Product Labelling* bagi kategori M, N dan O

<table>
<tr><th>BIL.</th><th>PERKARA</th><th>STATUS PELAKSANAAN</th><th>FORMAT PRODUCT LABELLING</th></tr>
<tr><td>1.</td><td>Nombor siri kelulusan VTA tahun 2015 dan ke atas (bagi model baharu dan model sedia ada yang mematuhi ketetapan VTA terkini)

Contoh: XXX/1001/15

XXX – Kod Buatan Kenderaan
10 – Kod bagi model baharu atau model sedia ada yang mematuhi ketetapan VTA terkini (2015)
01 – Running Number bagi kelulusan VTA
15 – Tahun kelulusan VTA diperolehi</td><td rowspan="2">Boleh diterimapakai untuk pemeriksaan di Puspakom.</td><td rowspan="2">(a) NAMA PENGELUAR KENDERAAN
(b) XXX/1001/17
(c) NO CASIS KENDERAAN
(d) 2395 kg
(e) 4555 kg atau kosongkan (jika tidak berkaitan)
(f) 1 – 1225 kg
2 – 1295 kg

Penjelasan:

(a) Name of the Manufacturer ;
(b) Vehicle Type Approval (VTA) Number ;
(c) Vehicle Identification Number (VIN) / Chassis Number ;
(d) Gross Vehicle Weight (GVW) of the vehicle*1 ;
(e) Gross Combination Weight (GCW), where the vehicle is used for towing*2 ; and
(f) Axle load rating for each axle, listed in order from front to rear.
*1 GVW in this case = Berat Dengan Muatan (BDM)
*2 GCW in this case = Berat Gabungan Kasar (BGK)
Atau:

a) Menggunakan format sedia ada ; atau
b) Format yang diluluskan oleh JPJ melalui surat kelulusan rasmi.</td></tr>
<tr><td>2.</td><td>Nombor siri kelulusan VTA tahun Julai 2017 dan ke atas (bagi model baharu dan model sedia ada yang mematuhi ketetapan VTA terkini)

Contoh: XXX/2001/17

XXX – Kod Buatan Kenderaan
20 – Kod bagi model baharu atau model sedia ada yang mematuhi ketetapan VTA terkini (2017)
01 – Running Number bagi kelulusan VTA
17 – Tahun kelulusan VTA diperolehi</td></tr>
<tr><td>3.</td><td>a) Nombor siri kelulusan VTA tahun 2015 dan ke atas (bagi model sedia ada yang tidak mematuhi ketetapan VTA terkini)

Contoh: HON/0001/15

00 – Kod bagi model sedia ada yang tidak mematuhi ketetapan VTA terkini

b) Nombor siri kelulusan VTA tahun 2014 dan ke bawah

Contoh: PRO/0001/14</td><td>Boleh diterimapakai untuk pemeriksaan bagi kenderaan yang dikeluarkan sebelum 01 Januari 2017 (berdasarkan tarikh pengeluaran [Production Date]).

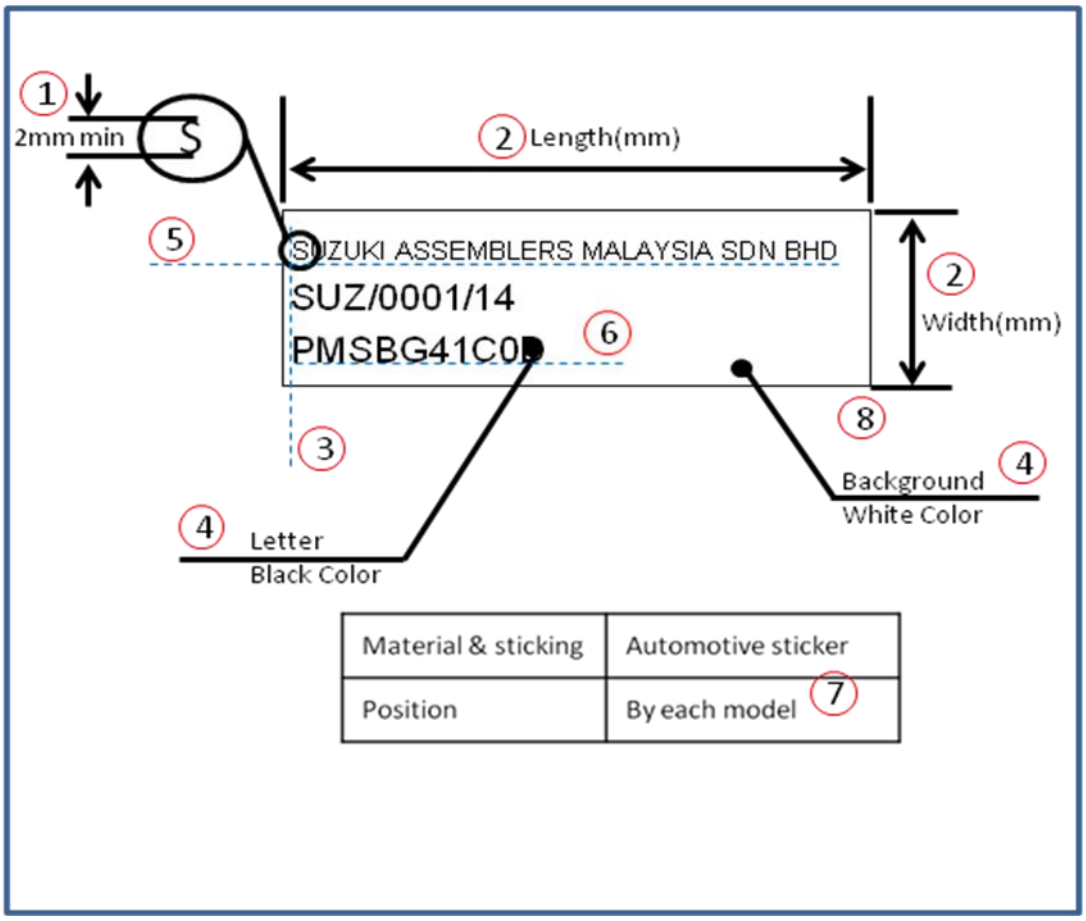
atau ;

Tidak boleh diterimapakai untuk pemeriksaan bagi kenderaan yang dikeluarkan mulai 01 Januari 2017 KECUALI mendapat kelulusan pengecualian untuk tempoh tertentu daripada National Committee for Type Approval (VTA) and Homologation</td><td>a) Menggunakan format sedia ada ; atau
b) Format yang diluluskan oleh JPJ melalui surat kelulusan rasmi.</td></tr>
</table>

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

LAMPIRAN 23

Contoh Format *Product Labelling* bagi kategori L (Motosikal)



- *Product labelling will be declared & indicated during VTA application*
- *Minimum height of font is 2 mm*
- *Align text from left*
- *Background in white color & letter in black color*
- *Chassis and VTA approval number must be in capital letter*

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

LAMPIRAN 24

PANDUAN PERATURAN UN YANG DIKUATKUASAKAN MENGIKUT KATEGORI KENDERAAN

E52

TYPE APPROVAL OF MOTORCYCLE

Category L 1 -7

Implementation of UN Regulations based on Vehicle Category

* Generally the mentioned UN Regulations are applicable

Environment

Noise (3-Wheeled Vehicle)	R9	1
Diesel Smoke	R24	2
Exhaust Emission	R40	3
Noise	R41	4
Exhaust Emission	R47	5
Noise (Moped)	R63	6

General Safety

EMC Compatibility	R10	7
Speedometer	R39	8
Safety Glass	R43	9
Protect Unauthorized Use	R62	10

Passive Safety

Safety-belts	R16	11
Head Restraints	R25	12

Total of 40 UN Regulations

Braking	R78	32
Rear-view Mirrors	R81	33
Halogen Headlamps (HS2)	R82	34
Day Time Running Lamps	R87	35
Replacement Brake Lining	R90	36
Gas-Discharge Headlamps	R98	37

Headlamps Asymmetrical	R112	38
Headlamps Symmetrical	R113	39
LED Light Sources	R128	40

Active Safety

Retro Reflecting Device	R3	13
Direction Indicators	R6	14
Stop & End-outline Lamps	R7	15
Front Fog Lamps	R19	16
Audible Warning Devices	R28	17
Filament Lamps	R37	18
Rear Fog Lamps	R38	19
Headlamp Cleaners	R45	20
Rear-view Mirror	R46	21
Lights	R50	22
Installation of Lights	R53	23
Headlamps (Moped)	R56	24
Headlamps (M'cycle)	R57	25
Driver Operated Control	R60	26
Special Warning Lights	R65	27
Halogen Headlamps	R72	28
Installation of Lights	R74	29
Tyres	R75	30
Headlamps (Moped)	R76	31

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

E52

TYPE APPROVAL OF PASSENGER CAR

Implementation of UN Regulations based on Vehicle Category

Category M 1

* Generally the mentioned UN Regulations are applicable

Total of 59 UN Regulations

Passive Safety

Door Latches and Hinges	R11	1
Steering Mechanism	R12	2
Safety-belt Anchorages	R14	3
Safety-belts	R16	4
Seats	R17	5
Interior Fittings	R21	6
Head Restraints	R25	7
External Projections	R26	8
Prevention of Fire Risks	R34	9
Frontal Collision	R94	10
Lateral Collision	R95	11
Partitioning System	R126	12

Environment

Diesel Smoke	R24	13
Diesel Emission	R49	14
Noise Emission	R51	15
Gaseous Pollutants	R83	16
Measure Engine Power	R85	17
CO_2 Emission & Fuel Cons.	R101	18
Rolling Sound Emission	R117	19

General Safety

EMC Compatibility	R10	20
Speedometer	R39	21
Safety Glass	R43	22
Mechanical Coupling	R55	23
Vehicle Alarm System	R97	24
Battery Electric Vehicle	R100	25
LPG & CNG Retrofit S'tem	R115	26
Protect Unauthorized Use	R116	27
Forward Field Vision	R125	58
LED Light Sources	R128	59
Speed Limitation Device	R89	48
Replacement Brake Lining	R90	49
Side-marker Lamps	R91	50
Gas Discharge Headlamps	R98	51
Gas-Discharge Lights	R99	52
Retread Pneumatic Tyres	R108	53
Headlamps Asymmetrical	R112	54
Cornering Lamp	R119	55
Hand Controls, Tell-tales	R121	56
Adapt Front Light S'tem	R123	57

Active Safety

Retro Reflecting Device	R3	28
Illumination Rear Plates	R4	29
Direction Indicators	R6	30
Stop & end-outline Lamps	R7	31
Vehicle Braking	R13H	32
Front Fog Lamps	R19	33
Reversing Lamps	R23	34
Audible Warning Devices	R28	35
Pneumatic Tyres	R30	36
Filament Lamps	R37	37
Rear Fog Lamps	R38	38
Headlamp Cleaners	R45	39
Rear-view Mirror	R46	40
Installation of Lights	R48	41
Temporary Tyres / TPMS	R64	42
Special Warning Lights	R65	43
Rear Marking Plates	R69	44
Parking Lamps	R77	45
Steering Equipment	R79	46
Daytime Running Lamps	R87	47

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

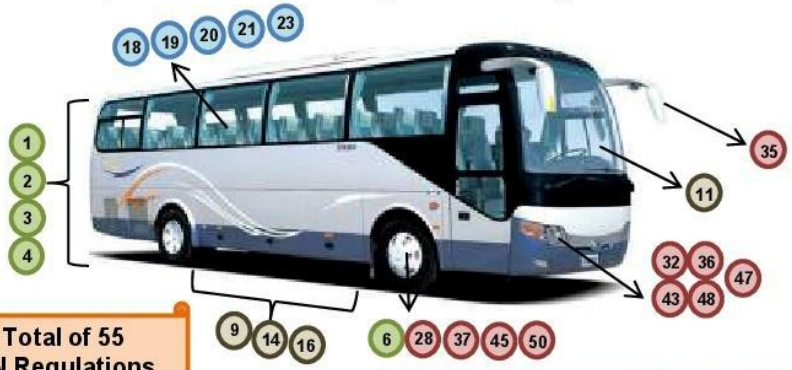
E52

TYPE APPROVAL OF BUS - COACH

Implementation of UN Regulations based on Vehicle Category

Category M 2 3

* Generally the mentioned UN Regulations are applicable



Total of 55 UN Regulations

Environment

Diesel Smoke	R24	1
Diesel Emission	R49	2
Noise Emission	R51	3
Gaseous Pollutants	R83	4
Measure Engine Power	R85	5
Rolling Sound Emission	R117	6

General Safety

EMC Compatibility	R10	7
Protect Unauthorized Use	R18	8
Bus/Coach Construction	R36	9
Speedometer	R39	10
Safety Glass	R43	11
Bus/Coach Construction	R52	12
Mechanical Coupling	R55	13
Superstructure	R66	14
Battery Electric Vehicle	R100	15
Construction Bus/Coach	R107	16
LPG & CNG Retrofit S'tem	R115	17

Passive Safety

Safety-belt Anchorages	R14	18
Safety-belts	R16	19
Seats	R17	20
Head Restraints	R25	21
Prevention of Fire Risks	R34	22
Seats	R80	23
Adapt Front Light S'tem	R123	54
LED Light Sources	R128	55

Speed Limitation Device	R89	44
Replacement Brake Lining	R90	45
Side-marker Lamps	R91	46
Gas Discharge Headlamps	R98	47
Gas-Discharge Lights	R99	48
Retro-reflective Markings	R104	49
Retread Pneumatic Tyres	R109	50
Headlamps Asymmetrical	R112	51
Cornering Lamp	R119	52
Hand Controls, Tell-tales	R121	53

Active Safety

Retro Reflecting Device	R3	24
Illumination Rear Plates	R4	25
Direction Indicators	R6	26
Stop & end-outline Lamps	R7	27
Heavy Vehicle Braking	R13	28
Front Fog Lamps	R19	29
Reversing Lamps	R23	30
Audible Warning Devices	R28	31
Filament Lamps	R37	32
Rear Fog Lamps	R38	33
Headlamp Cleaners	R45	34
Rear-view Mirror	R46	35
Installation of Lights	R48	36
Pneumatic Tyres	R54	37
Special Warning Lights	R65	38
Rear Marking Plates	R69	39
Rear Marking Plates	R70	40
Parking Lamps	R77	41
Steering Equipment	R79	42
Daytime Running Lamps	R87	43

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

E52

TYPE APPROVAL OF LIGHT DUTY TRUCK - LORRY

Category N 1

Implementation of UN Regulations based on Vehicle Category

Total of 60 UN Regulations

* Generally the mentioned UN Regulations are applicable

Environment

Diesel Smoke	R24	1
Diesel Emission	R49	2
Noise Emission	R51	3
Gaseous Pollutants	R83	4
Measure Engine Power	R85	5
CO_2 Emission & Fuel Cons.	R101	6
Rolling Sound Emission	R117	7

Passive Safety

Door Latches and Hinges	R11	8
Steering Mechanism	R12	9
Safety-belt Anchorages	R14	10
Safety-belts	R16	11
Seats	R17	12
Head Restraints	R25	13
Prevention of Fire Risks	R34	14
External Projection	R61	15
Protect Lateral Collision	R95	16

General Safety

EMC Compatibility	R10	17
Speedometer	R39	18
Safety Glass	R43	19
Mechanical Coupling	R55	20
Vehicle Alarm System	R97	21
Battery Electric Vehicle	R100	22
Dangerous Goods Vehicle	R105	23
LPG & CNG Retrofit S'tem	R115	24
Protect Unauthorized Use	R116	25
Hand Controls, Tell-tales	R121	58
Adapt Front Light S'tem	R123	59
LED Light Sources	R128	60

Steering Equipment	R79	46
Daytime Runnning Lamps	R87	47
Speed Limitation Device	R89	48
Replacement Brake Lining	R90	49
Side-marker Lamps	R91	50
Gas Discharge Headlamps	R98	51
Gas-Discharge Lights	R99	52
Retro-reflective Markings	R104	53
Retread Pneumatic Tyres	R108	54
Retread Pneumatic Tyres	R109	55
Headlamps Asymmetrical	R112	56
Cornering Lamp	R119	57

Active Safety

Retro Reflecting Device	R3	26
Illumination Rear Plates	R4	27
Direction Indicators	R6	28
Stop & End-outline Lamps	R7	29
Heavy Vehicle Braking	R13	30
Vehicle Braking	R13H	31
Front Fog Lamps	R19	32
Reversing Lamps	R23	33
Audible Warning Devices	R28	34
Pneumatic Tyres	R30	35
Filament Lamps	R37	36
Rear Fog Lamps	R38	37
Headlamp Cleaners	R45	38
Rear-view Mirror	R46	39
Installation of Lights	R48	40
Pneumatic Tyres	R54	41
Spare Tyres / TPMS	R64	42
Special Warning Lights	R65	43
Rear Marking Plates	R69	44
Parking Lamps	R77	45

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

E52

TYPE APPROVAL OF HEAVY DUTY TRUCK - LORRY

Category N 2 3

Implementation of UN Regulations based on Vehicle Category

Total of 55 UN Regulations

* Generally the mentioned UN Regulations are applicable

Environment

Diesel Smoke	R24	1
Diesel Emission	R49	2
Noise Emission	R51	3
Gaseous Pollutants	R83	4
Measure Engine Power	R85	5
Rolling Sound Emission	R117	6

Passive Safety

Safety-belt Anchorages	R14	7
Safety-belts	R16	8
Seats	R17	9
Head Restraints	R25	10
Prevention of Fire Risks	R34	11
Rear Under-run Protect	R58	12
External Projection	R61	13
Lateral Protection	R73	14
Front Under-run Protect	R93	15

General Safety

EMC Compatibility	R10	16
Protect Unauthorized Use	R18	17
Speedometer	R39	18
Safety Glass	R43	19
Mechanical Coupling	R55	20
Battery Electric Vehicle	R100	21
Dangerous Goods Vehicle	R105	22
LPG & CNG Retrofit S'tem	R115	23
Adapt Front Light S'tem	R123	54
LED Light Sources	R128	55

Speed Limitation Device	R89	44
Replacement Brake Lining	R90	45
Side-marker Lamps	R91	46
Gas Discharge Headlamps	R98	47
Gas-Discharge Lights	R99	48
Retro-reflective Markings	R104	49
Retread Pneumatic Tyres	R109	50
Headlamps Asymmetrical	R112	51
Cornering Lamp	R119	52
Hand Controls, Tell-tales	R121	53

Active Safety

Retro Reflecting Device	R3	24
Illumination Rear Plates	R4	25
Direction Indicators	R6	26
Stop & End-outline Lamps	R7	27
Heavy Vehicle Braking	R13	28
Front Fog Lamps	R19	29
Reversing Lamps	R23	30
Audible Warning Devices	R28	31
Filament Lamps	R37	32
Rear Fog Lamps	R38	33
Headlamp Cleaners	R45	34
Rear-view Mirror	R46	35
Installation of Lights	R48	36
Pneumatic Tyres	R54	37
Special Warning Lights	R65	38
Rear Marking Plates	R69	39
Rear Marking Plates	R70	40
Parking Lamps	R77	41
Steering Equipment	R79	42
Daytime Running Lamps	R87	43

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

E52

TYPE APPROVAL OF TRAILERS (INCLUDING SEMI-TRAILERS)

Implementation of UN Regulations based on Vehicle Category

Category $O_{2\ 4}^{1\ 3}$

* Generally the mentioned UN Regulations are applicable

Total of 30 UN Regulations

Environment

Rolling Sound Emission	R117	1

Passive Safety

Safety-belts	R16	2
Prevention of Fire Risks	R34	3
Rear Under-run Protect	R58	4
Lateral Protection	R73	5

General Safety

EMC Compatibility	R10	6
Safety Glass	R43	7
Mechanical Coupling	R55	8
Dangerous Goods Vehicle	R105	9
LED Light Sources	R128	30

Active Safety

Retro Reflecting Device	R3	10
Illumination Rear Plates	R4	11
Direction Indicators	R6	12
Stop & End-outline Lamps	R7	13
Heavy Vehicle Braking	R13	14
Reversing Lamps	R23	15
Pnuematic Tyres	R30	16
Filament Lamps	R37	17
Rear Fog Lamps	R38	18
Installation of Lights	R48	19
Pneumatic Tyres	R54	20
Special Warning Lights	R65	21
Rear Marking Plates	R69	22
Rear Marking Plates	R70	23
Steering Equipment	R79	24
Replacement Brake Lining	R90	25
Side-marker Lamps	R91	26
Retro-reflective Markings	R104	27
Retread Pneumatic Tyres	R108	28
Retread Pneumatic Tyres	R109	29

DATO' IR. HJ. MOHAMAD KEJURUTERAAN AUTOMOTIF P(KA)

PENGHARGAAN

PENASIHAT	:	DATO' Ir. HJ MOHAMAD BIN DALIB
		Ir. MOHD YUSOP BIN MOHAMAD
		AZZAHARIN BIN ALLIAS
KETUA	:	Ir. MOHD FAIRUZ BIN IZANI
SETIAUSAHA	:	NORRISAM BIN SAHAK
		MOHD FAIZULAKMA BIN ABDUL RAZAK
AHLI JAWATANKUASA	:	SHAHRUL BIN NORDIN
		NOR AZDIAH BINTI MD AKIP
		NOR AFDZULIZA BINTI ZULKEFLI
		MOHD FIZRI BIN ZAILAN