

ENVIRONMENTAL PROTECTION DEPARTMENT

Guidance Notes

Application for Motor Cycle Exhaust Emission and Noise Emission Type Approval

1. Application form

The application form consists of two parts, PART I and PART II. PART I is the applicant's information and PART II is information of the motorcycle model for which type approval is sought. You should complete every item and provide all necessary information to support your application. TWO copies of PART I are required if you apply for both motorcycle exhaust and noise emission type approval.

2. Authorized signature

The application form and the CD-ROMs must have authorized signatures of the motorcycle manufacturer to certify that the information of the motorcycle model under application is correct and complete.

3. Checklist

The information in the checklist is essential for your application. You may provide other information to support your application.

4. Submission of Application

The completed application form together with all supporting documents can be sent by post or in person to
Environmental Protection Department
Mobile Source Policy Section (1)
Room 4518, 45/F., Revenue Tower,
5 Gloucester Road,
Wan Chai, Hong Kong.

Enquiry:

E-mail address : cannischeung@epd.gov.hk

| | | |
|-----------------------------|-----------------------|---------------------|
| Telephone : (852) 2594 6332 | Fax : (852) 2824 9361 | on exhaust emission |
| (852) 2411 9665 | Fax : (852) 2413 3358 | on noise emission |

Environmental Protection Department
November 2006

ENVIRONMENTAL PROTECTION DEPARTMENT

APPLICATION FOR MOTORCYCLE EXHAUST AND NOISE EMISSION TYPE APPROVAL

Vehicle Make & Model : _____

Class of Vehicle: (e.g. Motorcycle or Motor Tricycle) _____

PART I

A. Applicant's information

Company : _____

Address : _____

Business Registration No. : _____

Telephone No. : _____ Fax No. : _____

Name and Telephone No. of Contact Person (if applicable): _____

Signature (Applicant) : _____

Name: _____ Position : _____

E-mail Address : _____ Date : _____

Checklist

Please tick the relevant boxes

- Two copies of PART I – Applicant's information
- One copy of PART II – Information of the Motorcycle Model for Type Approval
- *One CD-Rom containing third party certificates for exhaust emission / *One hard copy of third party certificate for exhaust emission
- *One CD-Rom containing third party certificates for noise emission / *One hard copy of third party certificate for noise emission
- *Certification issued by the Ministry of Land, Infrastructure and Transport
- * Other supporting documents, please specify _____

Submission of Application

The completed application form together with all supporting documents can be sent by post or in person to
Environmental Protection Department
Mobile Source Policy Section (1)
Room 4518, 45/F., Revenue Tower,
5 Gloucester Road,
Wan Chai, Hong Kong.

Note : * delete as appropriate

B.1) Declaration by Motorcycle Manufacturer

I certify that

- (a) the information in PART II – Information of the Motorcycle Model for Type Approval is the correct description of the vehicle or engine model under application.
- (b) the vehicle / engine type described in Part A, Part B and Part C complies with the vehicle exhaust emission standards and the noise emission standards as laid down in the Air Pollution Control (Vehicle Design Standards)(Emission) Regulation and Noise Control (Motor Vehicles) Regulation respectively.
- (c) adequate arrangements and prepared documented quality control plans with certification to international standard such as EN ISO 9002 – 1994, or EN ISO 9001 – 2000 or an equivalent standard acceptable by the Environmental Protection Department has been set up to ensure all vehicles and engines produced and offered for sale in Hong Kong comply with the exhaust emission standards as laid down in the Air Pollution Control (Vehicle Design Standards)(Emission) Regulations.
- (d) at least 1% (or % as agreed with the Environmental Protection Department) of the total sales of the motorcycles or engines of the model for which emission type approval is sought, and destined for Hong Kong will be sampled randomly for exhaust emission test to confirm the vehicle model complies with the emission requirements in the Air Pollution Control (Vehicle Design Standards)(Emission) Regulations.
- (e) an annual report will be submitted to the Environmental Protection Department for the approved motorcycle model or engine model substantiating the fulfillment of the conformity of production requirements in the approved conformity production plan.

Authorised Homologation Staff (Signature) : _____

Name and Position : _____

Company : _____

Date : _____

PART II INFORMATION OF THE MOTORCYCLE MODEL FOR TYPE APPROVAL

A. Details of the Motorcycle, Engine, Air-Intake and Exhaust Control Systems

A.1) Description of Motorcycle

Make :
Model (Sales Designation) :
Registration Class :

Manufacturer's Name and Address :

Manufacturer's Representative's
Name and Address :

Design Weight (kg)⁽¹⁾ :
Unladen Mass of Vehicle (kg) :
Reference Mass of Vehicle (kg) :
Gross Vehicle Weight (kg) :

Gearbox - Type : Manual /Automatic / CVT*
- Model No. :

Number of Gears :

Gear Ratios - First : Second :
- Third : Fourth :
- Fifth : Sixth :

For CVT - Minimum Ratio :
- Maximum Ratio :

Final Drive Ratio :

Tyre Specifications - Front :
- Rear :

Note : * delete as appropriate

CVT means Continuously Variable Transmission

(1) Maximum design loaded vehicle weight as recommended by the manufacturer of a motor vehicle

A.2) Description of Engine

Make :

Type :

Type of Fuel used :

Cycle : Four Stroke / Two Stroke / Others* (please specify) :

Number and Arrangement of Cylinders :

Bore (mm) :

Stroke (mm) :

Firing Order of Cylinders :

Engine Capacity (litre) :

Volumetric Compression Ratio :

Cooling System :

No. of Carburetor*/Fuel Injection* :

Carburetor*/Fuel Injection* Manufacturer :

Carburetor*/Fuel Injection* Type :

Ignition Type :

Ignition Timing :

Lubricant Make and Type :

Spark Plug Make and Type :

Spark Plug Gap (mm) :

Rated Maximum Engine Power Output : _____ kW at _____(rpm)

Idle Engine Speed (rpm) :

Method of Aspiration : Natural / Turbocharger *

Note : * delete as appropriate

A.3) Description and Drawings of the Air-intake and Exhaust Control System

1. Air-Intake System

Description and drawings (showing in a plan view and a lateral view) of the air-intake system indicating the location of the intake silencer(s) and the air filter(s) :

(i) Air Filter, drawings number :

Model/Type :

Identification Marks :

Manufacturer/Authorized Agent :

(ii) Air Intake Silencer, drawings number :

Model/Type :

Identification Marks :

Manufacturer/Authorized Agent :

2. Exhaust Control System

Description and drawings (showing in a plan view and a lateral view) of the exhaust system indicating the location of the muffler(s), the catalytic converter(s) and the oxygen sensor(s) :

(i) Exhaust Silencer, drawings number:

Model/Type :

Identification Marks :

Manufacturer/Authorized Agent :

(ii) Catalytic Converter, drawings number:

Model/Type :

Identification Marks :

Manufacturer/Authorized Agent :

(iii) Oxygen Sensor, drawings number:

Control Range :

Model/Type :

Identification Marks :

Manufacturer/Authorized Agent :

(iv) Device for Recycle Crankcase Gases

Description and drawing number :

(v) Exhaust Gas Recirculation : yes / no*

Description and drawing number :

(vi) Air Injection : yes / no*

Description and drawing number :

Type (Pulse air, air pump etc.) :

(vii) Other Anti-Pollution Devices : yes / no*

Description and drawing number :

A.4) Description and Diagram of Motorcycle with Overall Dimensions

(including Fuel Tank Filling Pipe Neck Inside Diameter for petrol vehicles only).

Note : Attach separate sheet(s) showing a plan view, a front view and a lateral (side) view

A.5) Maintenance and Service Schedule under Normal and Severe Use

Note : Attach separate sheet(s) if necessary

B. Exhaust Emission Results

Important Notes:

- (1) For emission tests conforming to EC Directive, please complete Parts B.1 and B.2 and provide necessary EC Type Approval Certificates for Exhaust Emission or third party supporting information such as emission test report, etc. for verifying the emission test results in Part B.2.
- (2) For emission tests conforming to Japan Standard, please complete Parts B.1 and B.2 and complete the following information:
 - Emission testing results are originated from MLIT/local Land Transport Bureau emission testing report.
 - A copy of MLIT gazette/ /local Land Transport Bureau Notification is attached
 - MLIT gazette /local Land Transport Bureau Notification not available and will be submitted later.
- (3) For emission tests conforming to US Standard, please complete Parts B.1 and B.2 and provide necessary supporting information such as emission test reports for verifying emission test results in Part B.2.

B.1) Certificate of Compliance for Motorcycle Gaseous Emission

Vehicle Make :
Engine Make :
Vehicle Type (Model Code) :
 Variant :
 Version :
Vehicle Model :
Engine Model :
Manufacturer's name and address :

Specify EC Certificate Number / Conforming Standard for

Whole Vehicle Type Approval :
Exhaust Emission :

Test Report Number for

Whole Vehicle Type Approval :
Exhaust Emission :

Test Fuel Specifications : Values of RON / MON / Lead Content / Sulphur Content

B.2) Motorcycle Exhaust Emission Test Report

1. Identification of Motorcycle Tested

Engine No. ⁽¹⁾ :
Chassis No. ⁽¹⁾ :
Odometer Reading (km) :

Note : (1) Details of the engine/chassis code to support the vehicle/engine tested are applicable to the applied vehicle.

2. Motorcycle Exhaust Emission Test Results

2.1 Type I Test (Average Tailpipe Emissions in a Congested Urban Area)

Date of Testing :

| | <u>CO</u> | <u>HC</u> | <u>NOx</u> | <u>HC+NOx</u> |
|--------------|-----------|-----------|------------|---------------|
| Emitted Mass | | | | |
| Unit | | | | |
| Limit | | | | |

2.2 Roadworthiness Test

Date of Testing :

| | CO Value (% Vol.) | Lambda | Engine Speed (min ⁻¹) | Engine Oil Temperature (°C) |
|------------------|----------------------|--------|--------------------------------------|--------------------------------|
| Normal Idle Test | | | | |
| High Idle Test | | | | |

Name and Address of the :
Approved Test Laboratory

Laboratory Approved by :
(Name and Address of
National or Recognised Authority)

C. Details of the MotorCycle, Engine and Noise Emission Test Results

C.1)

**CERTIFICATE OF COMPLIANCE
FOR MOTOR VEHICLE NOISE EMISSION**

The vehicle/engine type _____ described below, offered for sale in Hong Kong, complies with the noise emission standards as laid down in the Noise Control (Motor Vehicles) Regulations 1995.

Vehicle Make :

Vehicle Model & Sales Designation :

Vehicle Registration Class :

Manufacturer's name and address :

Conforming noise standards :

The noise emission test results for the test motor vehicle are summarised in Part C.2 as follows.

Name and address of Manufacturer's testing site (if different from above) or Acoustic Testing Laboratory :

Date this _____ day of _____ 20 _____

Authorised for issue (Signature):

Name and Position :

C.2) Motor Vehicle Noise Emission Level Test Results:

The particulars of the test motor vehicle is detailed in Part A.

Test Date:

Test Site:

Name and address of the Acoustic Testing Laboratory:

The tests have been carried out in accordance with the testing procedure of the noise standards (EEC or *Japan) in the Noise Control (Motor Vehicles) Regulations. The specific testing procedure adopted is # (select whichever is appropriate).

Accelerated Running Noise Level Test (EEC and Japan noise standard)

Stationary Noise Level Test (EEC standard only)

Steady Running Noise Level Test (Japan standard only)

Proximity Stationary Noise Level Test (Japan standard only)

*Note: You should also **provide the appropriate test results** which comply with the noise standards indicated above. A model test results format as shown in Appendix II, for reference, should facilitate the interpretation of test results.*

* delete as appropriate

Appendix II Model format for the presentation of the motor vehicle noise test results

(Last Revised 24 March 95)

1) Accelerated Running Noise Level Test (for EEC and Japan noise standard)

| No. of Measurement | Used gear position or range | Specified speed (km/h) | Test speed (km/h) | | Level of ambient noise dB(A) | Motor vehicle noise level (dB) | | Test result dB(A) | Noise level limit dB(A) |
|--------------------|-----------------------------|------------------------|-------------------|--------|------------------------------|--------------------------------|-------------------|-------------------|-------------------------|
| | | | Entry | Exit | | Measured value | Compensated value | | |
| | | | *Left | *Right | | | | | |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |

Note: * denotes EEC test procedure requires noise levels be recorded on both the left and the right handed side of the test vehicle.

2) Stationary Noise Level Test (for EEC Standard only)

| No. of Measurement | Engine speed delivering max powered output (rpm) | Level of ambient noise dB(A) | Motor vehicle noise level (dB) | | Test result dB(A) |
|--------------------|--|------------------------------|--------------------------------|-------------------|-------------------|
| | | | Measured value | Compensated value | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |

3) Steady Running Noise Level Test (for Japan noise standard only)

| No. of Measurement | Used gear position or range | Specified speed (km/h) | Test speed (km/h) | Level of ambient noise dB(A) | Motor vehicle noise level (dB) | | Test result dB(A) | Noise level limit dB(A) |
|--------------------|-----------------------------|------------------------|-------------------|------------------------------|--------------------------------|-------------------|-------------------|-------------------------|
| | | | | | Measured value | Compensated value | | |
| 1 | | | | | | | | |
| 2 | | | | | | | | |

Appendix II Model format for the presentation of the motor vehicle noise test results

(contd...)

4) Proximity Stationary Noise Level Test (for Japan noise standard only)

| No. of Measurement | | Engine speed delivering max powered output (rpm) | Level of ambient noise dB(A) | Motor vehicle noise level (dB) | | Test result dB(A) | Noise level limit dB(A) |
|--------------------|---|--|------------------------------|--------------------------------|-------------------|-------------------|-------------------------|
| | | | | Measured value | Compensated value | | |
| Right | 1 | | | | | | |
| | 2 | | | | | | |
| Left | 1 | | | | | | |
| | 2 | | | | | | |