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- (表 10) 歐盟 1999/96/EC 重型柴油引擎汽車排放標準 – ETC 測試
- (表 11) 重型柴油及替代清潔燃料引擎汽車引擎族合格證明函申請表

(表 1) 美國一九九四年測試用油規範

Item	ASTM	Type 1-D	Type 2-D
Cetane	D613	40-54	40-48
Cetane Index	D976	40-54	40-48
Distillation range:			
IBP °F(°C)	D86	330-390	340-400 (171.1-204.4)
10 pct. point, °F(°C)	D86	(165.6-198.9) 370-430	400-460 (204.4-237.8)
10 pct. point, °F(°C)	D86	(187.8-221.1)	470-540 (243.3-282.2)
10 pct. point, °F(°C)	D86	410-480 (210-248.9)	560-630 (293.3-332.2)
EP, °F(°C)	D86	460-520	610-690 (321.1-365.6)
Gravity, °API	D287	(237.8-271.1)	32-37
Total Sulfur pct	D2622	500-560	0.03-0.05
Hydrocarbon composition:			
Aromatics		(260.0-293.3)	¹ 27
Parafins, Naphthenes, Olefins	D1319	40-44	(²)
Flashpoint, min., °F(°C)	D1319	0.03-0.05	130
	D93		(54.4)
Viscosity, centistokes		¹ 8	
	D445	(²)	2.0-3.2
		120 (48.9)	
		1.6-2.0	

1. Minimum
2. Remainder

(表 2) 美國二〇〇四年測試用油規範

Item	ASTM	Type 1-D	Type 2-D
Cetane	D613	40-54	40-50
Cetane Index	D976	40-54	40-50
Distillation range:			
IBP °F(°C)	D86	330-390	340-400 (171.1-204.4)
10 pct. point, °F(°C)	D86	(165.6-198.9) 370-430	400-460 (204.4-237.8)
10 pct. point, °F(°C)	D86	(187.8-221.1)	470-540 (243.3-282.2)
10 pct. point, °F(°C)	D86	410-480 (210-248.9)	560-630 (293.3-332.2)
EP, °F(°C)	D86	460-520	610-690 (321.1-365.6)
Gravity, °API	D287	(237.8-271.1)	32-37
Total Sulfur pct	D2622	500-560	0.03-0.05
Hydrocarbon composition:			
Aromatics		(260.0-293.3)	
Parafins, Naphthenes, Olefins	D1319	40-44	
Flashpoint, min., °F(°C)	D1319	0.03-0.05	
	D93		
Viscosity, centistokes		8	27
	D445	(¹)	(¹)
		120	130
		(48.9)	(54.4)
		1.6-2.0	2.0-3.2

1. Remainder

DIESEL FUEL⁽¹⁾

Parameter	Unit	Limits ⁽²⁾		Test Method	Publication
		Minimum	Maximum		
Cetane number ⁽³⁾		52	54	EN-ISO 5165	1998 ⁽⁴⁾
Density at 15°C	kg/m ³	833	837	EN-ISO 3675	1995
Distillation:					
— 50% point	°C	245	—	EN-ISO 3405	1998
— 95% point	°C	345	350	EN-ISO 3405	1998
— final boiling point	°C	—	370	EN-ISO 3405	1998
Flash point	°C	55	—	EN 27719	1993
CFPP	°C	—	-5	EN 116	1981
Viscosity at 40°C	mm ² /s	2.5	3.5	EN-ISO 3104	1996
Polycyclic aromatic hydrocarbons	%m/m	3.0	6.0	IP 391 ^(*)	1995
Sulphur content ⁽⁵⁾	mg/kg	—	300	pr.EN-ISO/DIS 14596	1998 ⁽⁴⁾
Copper corrosion		—	1	EN-ISO 2160	1995
Conradson carbon residue (10% DR)	%m/m	—	0.2	EN-ISO 10370	
Ash content	%m/m	—	0.01	EN-ISO 6245	1995
Water content	%m/m	—	0.05	EN-ISO 12937	1995
Neutralisation (strong acid) number	mg KOH/g	—	0.02	ASTM D 974-95	1998 ⁽⁴⁾
Oxidation stability ⁽⁶⁾	mg/ml	—	0.025	EN-ISO 12205	1996
(*)New and better method for polycyclic aromatics under development	%m/m	—	—	EN 12916	[1997] ⁽⁴⁾

(1)If it is required to calculate the thermal efficiency of an engine or vehicle, the calorific value of the fuel can be calculated from:

Specific energy (calorific value) (net) in MJ/kg = (46,423 - 8,792d² + 3,170d) (1-(x+y+s)) + 9,420s - 2,499x where,

d = the density at 15°C

x = the proportion by mass of water (% divided by 100)

y = the proportion by mass of ash (% divided by 100)

s = the proportion by mass of sulphur (% divided by 100)

(2)The values quoted in the specification are true values. In establishment of their limit values the terms of ISO 4259, Petroleum products – Determination and application of precision data in relation to methods of test, have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account; in fixing a maximum and minimum value, the minimum difference is 4R (R = reproducibility). Notwithstanding this measure, which is necessary for statistical reasons, the manufacturer of a fuel should nevertheless aim at a zero value where the stipulated maximum value is 2R and at the mean value in the case of quotations of maximum and minimum limits. Should it be necessary to clarify the question as to whether a fuel meets the requirements of the specification, the terms of ISO 4259 should be applied.

(3)The range for cetane number is not in accordance with the requirement of a minimum range of 4R. However, in the case of dispute between fuel supplier and fuel user, the terms in ISO 4259 can be used to resolve such disputes provided replicate measurements, of sufficient number to achieve the necessary precision, are made in preference to single determinations.

(4)The month of publication will be completed in due course.

(5)The actual sulphur content of the fuel used for the test shall be reported. In addition, the sulphur content of the reference fuel used to approve a vehicle or engine against the limit values set out in row B of the Table in section 6.2.1. of Annex I to this Directive shall have a maximum sulphur content of 50 ppm. The Commission will as soon as possible, but no later than 31 December 1999, bring forward a modification to this Annex reflecting the market average for fuel sulphur content in respect of the fuel defined in Annex IV to Directive 98/70/EC.

(6)Even though oxidation stability is controlled, it is likely that shelf life will be limited. Advice should be sought from the supplier as to storage conditions and life.

<u>年份</u>	<u>代碼</u>	<u>年份</u>	<u>代碼</u>
1997	V	2005	5
1998	W	2006	6
1999	X	2007	7
2000	Y	2008	8
2001	1	2009	9
2002	2	2010	A
2003	3	2011	B
2004	4	2012	C

(表 4) 標準引擎族命名法車型年代碼

<u>代碼</u>	<u>製 造 者</u>
BB	Bluebird Body Co.
CP	Caterpillar Inc.
CR	Chrysler motor Corporation
CE	Cummins Engines Company, Inc.
DF	DAF Truck B. V.
JD	Deere & Company
DD	Detroit Diesel Corporation
MB	Mercedes-Benz Aktiengesellschaft
FM	Ford Motor Company
GM	General Motors Corporation
HE	Hercules Engines Inc.
HM	Hino Motors, Ltd.
SZ	Isuzu Motors Limited.
VE	IVECO B. V.
DZ	Klocker-Humboldt-Deutz AG
MK	Mack Truck, INC.
MN	MAN Nutzfahrzeuge GmbH
MM	Mitsubishi Motor Corporation
MC	Mazda Corporation
NV	Navistar International Company
ND	Nissan Diesel Co., Ltd.
RE	Renault Vehicules Industriels
SA	Saab-Scania
VT	Volvo White Truck Division
WB	Winnebago
PK	Perkins Engine Company
PC	Peugeot Citroen Motors
TY	TOYOTA Motor Co.

(表 5)
標準引擎族命名法
重型引擎製造者代碼

代碼

引擎型式

(表 6)
標準引擎族命名法
重型引擎型式代碼

- B 噴油式火花點燃引擎
(Spark ignition fuel injected)
- C 渦輪增壓式火花點燃引擎
(Spark ignition turbo-charged)
- D 壓燃引擎
(Compression ignition)
- E 渦輪增壓式壓燃引擎
(Compression ignition turbo-charged)
- F 裝置後冷卻器或中間冷卻器之渦輪增壓壓燃引擎
(Compression ignition turbo-charged and aftercooled or intercooled)
- G 甲醇為燃料之化油器式火花點燃引擎
(Methanol spark ignition carbureted)
- H 甲醇燃料之噴油式火花點燃引擎
(Methanol spark ignition fuel injected)
- J 甲醇燃料之渦輪增壓式火花點燃引擎
(Methanol spark ignition turbo-charged)
- K 甲醇燃料之壓燃引擎
(Methanol compression ignition)
- L 甲醇燃料之渦輪增壓壓燃引擎
(Methanol compression ignition turbo-charged)
- M 甲醇燃料之渦輪增壓壓燃引擎、裝置後冷卻器或中間冷卻器
(Methanol compression ignition turbo-charged and aftercooled or intercooled)

(表 7) 標準引擎族命名法重型引擎污染控制系統代碼

代碼	控制系統
A	引擎修正 (Engine modification)
B	空氣噴射系統 (Air injection)
C	廢氣再循環系統 (Exhaust gas recirculation)
D	氧化式觸媒系統 (Oxidation catalyst)
E	還原式觸媒系統 (Reduction catalyst)
F	三元式觸媒系統 (Three-Way catalyst)
G	空氣噴射+廢氣再循環系統 (Air injection + exhaust gas recirculation)
H	空氣噴射+氧化觸媒系統
J	空氣噴射+還原觸媒系統
K	空氣噴射+三元觸媒系統
L	廢氣再循環+氧化觸媒系統
M	廢氣再循環+還原觸媒系統
N	廢氣再循環+三元觸媒系統
P	
R	空氣噴射+廢氣再循環+氧化觸媒系統
S	空氣噴射+廢氣再循環+還原觸媒系統
T	空氣噴射+廢氣再循環+三元觸媒系統
Z	其 他
代碼	控制系統
A	引擎修正 (Engine modification)
B	空氣噴射系統 (Air injection)
C	廢氣再循環系統 (Exhaust gas recirculation)
D	氧化式觸媒系統 (Oxidation catalyst)
E	還原式觸媒系統 (Reduction catalyst)
F	三元式觸媒系統 (Three-Way catalyst)
G	空氣噴射+廢氣再循環系統 (Air injection + exhaust gas recirculation)
H	空氣噴射+氧化觸媒系統
J	空氣噴射+還原觸媒系統
K	空氣噴射+三元觸媒系統
L	廢氣再循環+氧化觸媒系統
M	廢氣再循環+還原觸媒系統
N	廢氣再循環+三元觸媒系統
P	
R	空氣噴射+廢氣再循環+氧化觸媒系統
S	空氣噴射+廢氣再循環+還原觸媒系統
T	空氣噴射+廢氣再循環+三元觸媒系統
Z	其 他

(表 8) 沿用車型年附加代碼

2000 年—A0	2010 年—B0	2020 年—C0	依此類推
2001 年—A1	2011 年—B1	2021 年—C1	依此類推
2002 年—A2	2012 年—B2	2022 年—C2	依此類推
2003 年—A3	2013 年—B3	2023 年—C3	依此類推
依此類推	依此類推	依此類推	依此類推

(表 9) 歐盟 1999/96/EC 重型柴油引擎汽車排放標準 — ESC 及 ELR 測試

排放標準值 — ESC 及 ELR 測試					
ROW	CO (g/kWh)	HC (g/kWh)	NO _x (g/kWh)	PT (g/kWh)	黑煙 (m ⁻¹)
A (2000)	2.1	0.66	5.0	0.10 0.13 ⁽¹⁾	0.8
B1 (2005)	1.5	0.46	3.5	0.02	0.5
B2 (2008)	1.5	0.46	2.0	0.02	0.5
C (EEV)	1.5	0.25	2.0	0.02	0.15

(1) 適用於每缸排氣量小於 0.75 dm³ 及額定馬力轉速大於 3000 rpm 之引擎。

(表 10) 歐盟 1999/96/EC 重型柴油引擎汽車排放標準 — ETC 測試

排放標準值 — ETC 測試 ⁽¹⁾					
ROW	CO (g/kWh)	NMHC (g/kWh)	CH ₄ ⁽²⁾ (g/kWh)	NO _x (g/kWh)	PT ⁽³⁾ (g/kWh)
A (2000)	5.45	0.78	1.6	5.0	0.16 0.21 ⁽⁴⁾
B1 (2005)	4.0	0.55	1.1	3.5	0.03
B2 (2008)	4.0	0.55	1.1	2.0	0.03
C (EEV)	3.0	0.4	0.65	2.0	0.02

(1) 以量測氣態引擎排放符合列 A 標準來驗證 ETC 測試程序接受性之條件應予以檢討，且於必要時依據 70/156/EEC 指令第 13 條之規定程序加以修改。
 (2) 僅適用於天然氣引擎。
 (3) 不適用於 A、B1、B2 列之氣體燃料引擎。
 (4) 適用於每缸排氣量小於 0.75 dm³ 及額定馬力轉速大於 3000 rpm 之引擎。

表 11

重型柴油及替代清潔燃料引擎汽車引擎族

合格證明函申請表

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附錄 Annex A
			No. of pages	Date
			Rev. no.	Date of rev.

一般資料
GENERAL INFORMATION

01. 引擎製造者
Engine Manufacturer
02. 廠牌
Make
03. 引擎型式
Engine model
04. 車型年
Model year
05. 證明文件請核發給下述公司（公司地址）
The certificate of conformity should be made out to the following company (full address).
06. 業者連絡人之姓名，地址及電話號碼（含國內及國外連絡人）
Name address and telephone number of the person(s) the EPA shall communicate with concerning this application (inside and outside Taiwan R.O.C.)
07. 依本辦法規定之下列項目應分項陳述（並由授權負責人簽章）。
Statements (undersigned by an authorized person) in accordance with the following items of the HDE Regulation.
 - .01- 該引擎符合本辦法之規定()
that the engines conform to the requirements()
 - .02- 對車主之承諾()
commitment to the car owners()
 - .03- 本署得視察測試設備()
permission for EPA to visit the test facilities
 - .04- 國內授權代理人()
authorized representative in R.O.C.()
 - .05- 已依本辦法()之規定進行測試
that the testing has been performed in accordance with the requirements
 - .06- 聲明新車抽驗依本辦法()之規定進行定量比例抽驗
(或強制稽核制度)
statement that conformance audit in accordance with the requirements would be conducted in Fixed-rate audit or SEA audit.
see page _____ in Appendix A _____
08. 引擎族排放空氣污染物品質管制計畫
Engine family emission control project.

備註

Remark

引擎族命名參照辦法三

The engine family designation refers to Appendix 3.

每一辦法應加以標識方予受理申請。

The complete application must be submitted with separating index sheets for each annex.

有關 07 項之陳述得包含於申請函中

The statements according to item 07 may be included in the cover letter.

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附錄 Annex B
			No. of pages	Date
			Rev. no.	Date of rev.

附加資料

ADDITIONAL INFORMATION

01. 引擎製造者聲明屬於本引擎族之引擎在最少小時數_____小時測試時之排放數據已經穩定化且具有代表性。

The engine manufacturer hereby states that the engines included in this engine family are stablized and representative of design intent for emission data testing at the minimum sum of _____ hours.

02. 本署應將新車抽驗資料寄送給業者連絡人員之姓名地址。

Name and full address of the person to whom the EPA should send information regarding CPA-testing.

03. 附屬之引擎型式。

additional engine model :

引擎型式 Engine model	估計國內銷售數量 Estimated sales (units) in Taiwan R. O. C.	Maximum engine power		
		kW	rpm	Meas. method
總數 Total (units)				

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附錄 Annex C
			No. of pages	Date
			Rev. no.	Date of rev.

本引擎族所屬之引擎型式
ENGINE MODEL WITHIN THE ENGINE FAMILY

引擎型式 Engine model	排放控制系統名稱 Emission control system designation	基本引擎名稱 Basic engine designation	適用之耐久測試里程數 Applicable durability test mileage

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附錄 Annex D-1
			No. of pages	Date
			Rev. no.	Date of rev.

基本引擎數據
BASIC ENGINE DATA

01. 基本引擎名稱
Basic engine designation _____
02. 燃燒循環(即 2 或 4 衝程/diesel)
Combustion cycle (e. g. 2 or 4-stroke/diesel) _____
03. 氣缸體型態(即 L-6, 90° V-8)
Cylinder block configuration(e. g. L-6, 90° V-8) _____
04. 氣缸數
Number of cylinders _____
05. 氣缸中心至中心尺寸(mm)
Cylinder bore center to center dimensions(mm) _____
06. 冷卻系統型式 (氣冷/水冷)
Type of cooling system (air/liquid) _____
07. 進氣閥及排氣閥之位置
Location of intake and exhaust valves _____
- .01. 每一氣缸之氣閥數目, 進氣/排氣
number of valves per cylinder, intake/exhaust _____
- .02. 進氣閥(角度)
intake valve(s)(degrees) see page _____ in appendix D
- .03. 排氣閥(角度)
exhaust valve(s)(degrees) see page _____ in appendix D
08. 供氣方式(自然供氣/增壓器供氣)
Method of air aspiration (natural/supercharged) _____
09. 燃油噴射方式(即: 直接或間接噴射供油)
Type of fuel injection system (e. g. D. I. or I. D. I.) _____
10. 排放控制系統名稱
Emission control system designation _____

備註

Remark

本引擎族中之引擎型式與上述基本引擎之 02~10 項目相同時, 得指定參考該項之資料
If items 02~10 are identical to a previously described basic engine within the engine family, reference can be made to that page.

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附錄 Annex D-2
			No. of pages	Date
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基本引擎數據 (續)

BASIC ENGINE DATA (cont.)

11. 氣缸孔徑(mm)
Bore(mm) _____
12. 衝程(mm)
Stroke(mm) _____
13. 排氣量(cm³)
Displacement (cm³) _____
14. 壓縮比(名稱值)
Compression ratio (nominal) _____
15. 閥頭直徑(進氣/排氣)
Valve head diameter (intake/exhaust) _____
16. 進氣/排氣孔面積(mm²)
intake/exhaust port area (mm²) _____
17. 閥門正時(曲軸角度)
Valve timing (crankshaft degress)
- .01. 開啟: 進氣/排氣
opening: Intake/Exhaust _____
- .02. 關閉: 進氣/排氣
close: Intake/Exhaust _____
- .03. 最大升程(mm)
maximum lift (mm) _____
18. 中間冷卻器 Yes No
Intercooler usage e page _____ in appendix D
19. 噴油系統描述
Description of injection system
- .01. 噴油正時(曲軸角度)
Injection timing (degree)
- .02. 噴油嘴描述及位置
Description and location of injection see page _____ in appendix D
- .03. 噴油壓力
Injection pressure

備註

Remark

每一基本引擎應個別填報。

Separate forms are required for each basic engine.

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附錄 Annex E-1
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排放控制系統說明

DESCRIPTION OF THE EMISSION CONTROL SYSTEM

01. 燃料及空氣供應系統

Fuel and air supply system

.01. 廠牌及型式名稱

Make and type designation _____

.02. 構造及操作方法

Configuration and method of operation

see page _____ in appendix E _____

.03. 燃料計量系統，瞬間富油系統，惰轉停止構造、
啟動及暖車富油系統及熱車惰轉補償系統，進
氣歧管及進氣溫度控制系統

Fuel metering system, transient
enrichment system, idle stop
configuration, starting and
warm up enrichment system and
hot idle compensation system,
inlet manifold and air inlet
temperature control system, as
applicable

see page _____ in appendix E _____

see page _____ in appendix E _____

.04. 校正

Calibration

02. 電子系統(無此裝置可不必提出)

Electrical system and other
devices off the engine

.01. 廠牌及型式名稱

Make and type designation _____

.02. 構造及操作方式

Configuration and method of
operation

see page _____ in appendix E _____

.03. 校正

Calibrations

see page _____ in appendix E _____

備 註

Remark

每一排放控制系統應個別填報。

Separate forms are required for each emission control system.

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排放控制系統說明(續)

DESCRIPTION OF THE EMISSION CONTROL SYSTEM (cont.)

03. 排放控制裝置

Emission control devices

.01. 指出廢氣排放控制系統所包含之裝置

Indicate the devices included in the
exhaust emission control system

- 濾煙器或粒狀物捕集器
Particulate Filter or
Particulate Trap
- 濾煙器再生裝置
Regeneration system for
particulate filter
- 排氣再循環系統
Exhaust gas recirculation
- 熱反應器
Thermal reactor
- 觸媒轉化器
Catalytic converter
- 二次空氣供給泵
Air injection, Air pump
- 二次空氣控制閥
Air injection, Plus air
- 減速裝置
Deceleration device
- 黑煙限制器
Smoke Puff Limit
- 電子控制
Electronic Control
- 引擎修改
Engine Modification

.02. 構造及操作方式

Configuration and method of operation

每一件之排放相關數據

Relevant emission related data
shall be given for component

see page _____ in appendix E_____

.03. 校正

Calibrations

see page _____ in appendix E_____

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排放控制系統說明(續)

DESCRIPTION OF THE EMISSION CONTROL SYSTEM (cont.)

04. 潤滑系統

Lubrication system

.01. 廠牌及型式名稱

Make and type designation _____

.02. 構造及操作方式

Configuration and method of operation

每一零件之排放相關數據

Relevant emission related data

shall be given for component

see page _____ in appendix E _____

.03. 校正

Calibrations

see page _____ in appendix E _____

05. 冷卻系統

Cooling system

.01. 廠牌及型式名稱

Make and type designation _____

.02. 構造及操作方式

Configuration and method of operation see page _____ in appendix E _____

.03. 校正

Calibrations

see page _____ in appendix E _____

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附 錄 Annex F
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引擎零件位置

LOCATION OF COMPONENTS ON THE ENGINE

01. 排放控制系統名稱
Emission control system designation
02. 引擎型式
Engine model(s)
03. 以相片或其他方式顯示排放控制零件於引擎上之位置
Photograph or equivalent showing the location of the emission control components on the engine

該相片之顯著位置應註明引擎組成型態名稱及排放控制系統項目。
該零件應以文字或數字作記號且已記載於零件辨識清冊上。
The photograph shall have a heading stating which engine configuration(s) and emission control system it describes. The components shall be marked by using a number or letter that shall be found in the part identification list.

如電子控制箱等無法裝置於引擎室之零件，其位置亦應指明。
The location of components such as e.g. an electronic control box, which might not be located in the engine compartment, must also be indicated see page _____ in appendix F _____
04. 真空管路配置示意圖
Schematic drawing of the vacuum hose routings and/or equivalent.

該資料應顯著註明引擎組成型態名及排放控制系統項目。
The information shall have a heading stating which engine configuration(s) and emission control system it describes. see page _____ in appendix F _____
05. 零件辨識清冊（量產零件）。於附錄 E 上所載之排氣相關零件應與零件上名稱及辨識號碼相同。
Part identification list (production units). Each emission related component described in annex E must be identified with the name and the identification code that can be found on the component.

該項資料應依 03 項之規定包含數字或文字，且每一零件之位置皆能由相片辨認。
The information shall also include the numbers or letters, required according to item 03., whereby the location of each components can be identified on the photograph. see page _____ in appendix F _____

備註 Remark

每一排放控制系統應個別填報。
Separate forms are required for each emission control system.

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可調整參數及建議之設定
ADJUSTABLE PARAMETERS AND RECOMMENDED SETTINGS

01. 引擎型式
Engine model(s) _____

02. 列出與污染排氣有關且實際可調之參數(包含那些不易接近之參數)
A list of emission related parameter which are physically capable of being adjusted (including those for which access is difficult) see page _____ in appendix G _____

03. 容易接近且可調整參數之建議設定值及其公差
Recommended setting with tolerances for normally accessible adjustable parameters see page _____ in appendix G _____

04. 由於防止改裝裝置不易接近之可調參數其生產設定公差範圍
Production settings with tolerances for parameters for which access is difficult due to tamper-proof devices. see page _____ in appendix G _____

05. 說明為限制或防止隨意接近與排氣污染相關可調參數所採行之措施
Description (configuration and method of operation) of the actions taken to limit or inhibit access of certain emission related adjustable parameters see page _____ in appendix G _____

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提供車主之排放相關手冊
EMISSION RELATED INSTRUCTIONS TO THE VEHICLE OWNER

01. 引擎型式
Engine model(s) _____
02. 啟動指引
Starting instructions see page _____ in appendix H _____
03. 建議使用燃料種類
Recommended fuel _____
04. 建議引擎工作溫度
Recommended engine temperature _____
05. 其他與排放有關之操作手冊以確保排放控制系統之有效使用。
Other emission related operational instructions
necessary for ensuring correct operation of the
emission control system see page _____ in appendix H _____
06. 與排放有關之維護手冊（包含交車前準備動作及保養期限）
以確保使用時能符合排放標準。
Emission related maintenance instructions
(including pre-delivery activities and
service intervals) necessary to ensured
in-use compliance see page _____ in appendix H _____
07. 依本附錄()之規定提供車主之保證影本。
Copy of the commitment to the
vehicle owners according to the
requirements() see page _____ in appendix H _____
08. 依本附錄()規定欲附貼在引擎上之中文標識照片或影本。
Copy or photograph of the Chinese label
adhesive to the engine according to
the requirement ()
09. 中文版之車主使用手冊影本，該資料可稍後再提供給本
署，但在國內市場銷售前必須先提送本署。
Copy of the owners handbook in Chinese
(This information may be supplied at
a later date but it must be supplied
to the EPA before the vehicles are
offered for sale on the Taiwan market) see page _____ in appendix H _____

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劣化係數
DETERIORATION FACTORS

01. 引擎型式
Engine model(s) _____

02. 廢氣排放測試
Exhaust emission test

DF	CO	
	HC	
	NO _x	
	PM	

採用方式 method used

- a. 實際劣化係數：
依據作業辦法()執行
- b. 法定劣化係數：
依據作業要點()執行

03. 以技術觀點來評估訂定劣化係數時所採用之方式(僅用於方式 a)

Technical account for the evaluation of
the method used to determine DF factors
(only applicable for method a)

see page _____ in appendix I _____

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測試數據摘要
TEST DATA SUMMARY

01. 排放數據
Emission data

引擎型式及測試引擎名稱 Engine model and type of test engine	排放測試結果 Emission test results including DF			
	CO g/BHP. hr	HC g/BHP. hr	NOx g/BHP. hr	PM g/BHP. hr
劣化係數				
最終值				
標準值	10.0	1.3	5.0	0.10

備註 Remarks

1) 依下列法規之規定說明測試引擎之選擇

E1=依本要點()規定選擇測試引擎

Specify the test engine selection according to the following codes :

E1=emission test engine selected according to item()of the

HDE Regulation

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附錄 Annex J-2
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測試數據摘要(續)
TEST DATA SUMMARY (cont.)

02. 耐久測試數據(Durability data)

測試引擎號碼 Test engine I.D. number	引擎型式 Engine Model(s)	劣化係數量測值 Measured deterioration factors			
		CO	HC	NOx	PM

備註 Remarks

1) 依下列法規之規定說明測試引擎之選擇

E1=依本要點()規定選擇測試引擎

Specify the test engine selection according to the following codes :

E1=emission test engine selected according to item()of the

HDE Regulation

行政院環境 保護署	重型柴油汽車引擎族 排氣合格證明函申請表 A 式 APPLICATION FORM A	引擎族 Engine family	Page	附錄 Annex K
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排放測試報告
EMISSION TEST REPORT

01. 測試數據
Test data

依本要點()規定所選擇之測試引擎之測試報告應包含
下列資料

For each emission test engine, selected in
accordance with item of the HDE Regulation,
the manufacturer shall present a test report
containing the following information :

- 測試編號及測試日期
test number and test data
- 測試引擎辨識(引擎型式、引擎號碼、引擎運轉小時數)。
test engine identification (engine model,
engine identification number, engine service hours)
- 引擎中排放相關零件之設定
engine setting of emission related components
- 引擎運轉累積日期及其小時數
service accumulation date and hours accumulated of performed
- 維修及保養紀錄
Maintenance & repair record
- 測試引擎診斷紀錄
Diagnostic test record issues of engine test
- 預先調整方式
pre-conditioning method
- 燃油油品規範
fuel specification
- 測試周圍之環境(大氣壓力、溫度等)
ambient conditions (atmospheric pressure, temperature etc.)
- 氣狀污染物測試結果
test results of gaseous mass emissions
- 粒狀污染物測試結果
test results of particulate emissions
- 耐久測試描述
durability test description (if applicable)
- 耐久測試結果
durability test result (if applicable)

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修正項目目錄
REVISION INDEX

修正編號 Revision number	修正日期 Revision date	附件／頁數 Annex/Page(s) affected	說明修正內容 Description of revision